AMERICAN ANNALS

OF

The Deaf,

Organ of the Convention of American Instructors of the Deaf,

EDITED BY

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AND

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AMERICAN ANNALS OF THE DEAF.
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THE INFLUENCE OF MANUAL TRAINING UPON THE MENTAL DEVELOPMENT OF THE DEAF.

IN OUR days of practical progress, demonstrative development, and experimental ideas in educational enterprises, manual training and domestic science are great factors in education. Time was, not very many years ago, when advocates of "The New Education" expended more time and energy in defending manual training as a means of education than in actual demonstrations of its value as such. It must be conceded that there was reason for criticism and need of defense.

Previously Froebel's theories of the kindergarten had met with much opposition, but after a while this had weakened and finally died away. Educators began to espouse his ideas and put them into actual practice. Once demonstrated, they were perhaps not always adopted as part of the school curriculum, but the fundamental principles were nevertheless commended and universally endorsed.

Not so manual training. Though in reality nothing more than a natural evolution of the kindergarten, it was not well received. And it was conducted in a way that did not command public confidence. Briefly the method was this: A course was laid out in advance; so many models in the course; so many different exercises in the making of a model. No more and no less.

The high-school boys were taken from their academic studies a couple of hours—more or less—each day, and put into the manual-training department. Here each received a drawing outfit and was requested to make a simple mechanical drawing, or part of one. It was to be copied, and perhaps enlarged, from a chart. Then the class repaired to the workshop. Each boy was provided with a bench and a complete kit of tools. In "The Laboratory of Carpentry," as the cabinet shop was scientifically (?) called, the instructor would get a piece of pine board and proceed to deliver a brief lecture on pine lumber, lumber woods, and lumbering. Then he would question the class along these lines. That part of the lesson would be wound up with a mathematical problem involving the cost of a piece of wood at so much per thousand feet. The students were then sent to their benches to make a "model." The instructor would direct every movement in the process of operation and define it in choice English phrases. What tool to use and the reason for using this or that were all explained by him. The whole suggested the drilling of a company of cadets. The personal wishes of the students were not considered, and there was no chance for individual development. An exercise or operation was not to be repeated if it could possibly be avoided, and the student must not work himself tired for fear that his interest might flag. In the other departments, the foundry and the machine-shop, the mode of procedure was the same. The whole system as then practiced was extremely superficial. It did no more than merely arouse the curiosity of the student and produced no beneficial results.

It is not surprising, then, that serious-minded and practical people opposed its introduction into the public-school system as part of the curriculum. The wonder is that it survived at all.

To-day exponents of manual training, having learned wisdom by experience, do more than talk and write about it. They "saw wood" and show tangible results. The stereotyped course has given way to personal preference and individual initiation, and ironclad rules do not dominate common sense and reason. No longer is there need of defenders of manual training. It defends itself. As an educational factor its force is irresistible. It is gaining adherents every day in the year, not only from educators, but from parents and pupils of all classes and from the masses also. School boards vote large sums for its maintenance. Supervisors and instructors of manual training receive larger salaries than teachers in the academic departments. There is hardly a school in the country that has not a manual-training plant. In many cities it is being taught in the graded schools as well.

In addition there are technical schools, trade schools, vocational schools, manual and mechanical-arts schools, agricultural schools, domestic-science schools, all aiming at the same goal—the training of the hand as well as the mind.

Domestic science, for girls, is another phase of "The New Education." It is receiving considerable attention by those concerned, but the demand for it in the public schools has not heretofore been so insistent as that for manual training. One—and probably the chief—reason for this apparent lack of interest is that mothers prefer to teach their daughters those things at home, rather than have them taught in the schools at public expense. Whatever may be said for or against this method, one thing is certain: the girl taught by her own mother in her own home will receive training of a superior quality and, other conditions being equal, will in all probability become a better

housekeeper than the one taught away from home. This is not saying that domestic science is not needed in the schools.

Some claim that the agricultural school is another offshoot of manual training, but whether there is any validity in such a claim it is not the province of this paper to determine. I will merely note in passing that this class of schools is increasing at an astonishingly rapid rate; all of which goes to prove that by scientific methods alone can things be done effectively and with satisfactory results.

Thus is the progress of mankind accelerated by active agencies. Evolutionary ideas in education emanate from the minds of great men. In the schoolroom and in the machine shop these ideas are imparted to a new generation—young men and women—to-day in school, to-morrow the moulders of public thought and opinion, whose influence will be felt to the farthermost corners of the earth.

Schools for the deaf were the pioneers among educational institutions in industrial training. In these schools a course in shopwork has always been considered an essential part of one's education. Manual training for the hearing is comparatively new, but it is progressing rapidly. The schools for the deaf are in danger of losing the leadership if, indeed, they have not already done so.

I am not saying that the quality of the shop products of the public schools is superior to that of the deaf schools, but the workrooms, machinery, and other implements are more complete and up-to-date in the former. The instructors also receive larger salaries than those of the deaf, whose compensation is not commensurate with the importance of their services.

Practically all the trades and industries in which the deaf can engage are being taught in the residential schools for the deaf while, as already stated, the public schools devote their energies along these lines to manual training only. Of the two the trade is more practical and desirable, especially for those who must earn their living with their hands. Manual training does not aim at technical dexterity in any specified line of work—in a word, does not specialize—but strives to train the hand and the mind in various tool manipulations. Thus the acquisition of a trade may be considered a vocational education while a course in manual training is properly part of a liberal education.

Besides regular trades only seven of the sixty-four public residential schools for the deaf in the United States teach manual training, while of the sixty-eight public day-schools thirty-three have manual training. It may be assumed, however, that the pupils of the latter do not derive all the benefit there is to be derived from it, because, having no special instructor, they must take their lessons with hearing pupils. This is unsatisfactory, partly because the pupils can not always understand instructions given orally, and partly because of poor grading in the class.

It is apparent that there is no great demand for manual training among the deaf, judging from the small number of schools that have it. Is it because a good trade is better for the deaf and therefore considered sufficient for their needs? or is it because of the fact that the curricula of our deaf schools are overcrowded? The pupils are so occupied every hour of the day that it is almost impossible to add anything to the course without at the same time neglecting something else.

Fourteen of the schools for the deaf have sloyd. Sloyd is a connecting link, as it were, between the kinder-

garten and manual training. It is well suited to the needs of boys of the age of ten to thirteen years. Its aims and objects are much the same as those of manual training; namely, to train the boys in the use of mechanical tools, and to inculcate in them the habits of application and industry. A combination of the Swedish and Russian methods, modified to conform to American conditions, affords a most excellent course in manual training for younger pupils. The system consists of elementary mechanical and constructive drawings and the making of a series of *useful* models. This latter involves a great variety of exercises and tool manipulations. Moreover it enables the learners to become familiar with the materials used. As the work progresses the instructor should see to it that no one-sided development takes place. The hand and the mind must be trained simultaneously. This can be done by teaching the names of tools, defining the exercises, and giving simple descriptions of materials. Problems can and ought to be incorporated. When it comes to parts of an inch, as it often does in measuring pieces of wood, a fine chance to elucidate the principles of fractions presents itself. Class work should not be attempted. Individual development should be one of the aims, and originality in plans and designs should be encouraged.

I lay emphasis on the words *useful* and *practical* because if the models do not possess these attributes the boys do not want to make them. A boy will work not only willingly but enthusiastically when making an article that he wants either for himself or for his mother at home, but if requested to make a joint or a dovetail for the sake of learning to make it he will sulk. A joint is of no earthly use *per se;* likewise there is no reason why one should make it merely for the training

derived therefrom. He will receive that training and experience in a logical and more satisfactory manner by making the joint when and where it is needed. Then he makes it for a purpose. Neither is it necessary to remind him repeatedly that he must be educated. If methods which experience has proved most satisfactory be employed, and the personal inclination of the learner be consulted with a view to develop his individuality, his training will result as a matter of course.

Mental and industrial education bring out the best there is in the individual and result in a full and harmonious development of all the faculties. This is the fundamental principle of manual training and the whole structure is built upon it. This aphorism has never been successfully contradicted.

"If we omit the mechanical laboratory we omit a valuable feature. It is one of the most fruitful for pupils just in their teens. Manual training is physics and art and gymnastics and mechanics combined. It keeps the young pupils alert. It stimulates thought and close observation. It feeds the natural appetite for mastery over material things and forces; it cultivates the taste; it encourages habits of system and precision and attention to details; it fosters the judicial characteristic of looking on all sides. It teaches one to see the end from the beginning, to lay plans, to invent, to create, to shorten methods, to economize time and material; to save labor; not, as some falsely suppose, for the purpose of avoiding labor, but that more may be accomplished. * * *

"It is useless to claim that it is the boy and not the school that is at fault when a healthy boy fails to take an interest in his school duties. It is common to insist that the boy has no brains or is lazy. The charge is

generally false, and the manual-training school has proved what I say over and over again. * * * There comes a time in the life of every boy when he craves with an irresistible appetite what may be called food for his physical nature; when the senses are most acute; when he is exquisitely conscious of his growing strength, his increasing power over the external world; when his budding manhood opens the door into the great workshop of nature, and he is satisfied with nothing less than actual contact with concrete forms and tangible forces.

"At this period the records of the past have little interest for a healthy boy. He must feel and act for himself; he must turn the key with his own hands, and himself unbar the gates. He has no natural appetite to destroy; he destroys because he can not create. He can destroy without being taught how; but how to build, how to construct, how to create, he does not know; there he requires instruction, training, system, and they yield the keener pleasure."

I could quote indefinitely and from various sources in support of industrial education and its influence upon the development of the mental faculties, but I shall make only one more excerpt. The April, 1914, number of the *Ladies' Home Journal* contains an article by Emeritus President Charles W. Eliot, of Harvard, from which I quote the paragraph below. Coming from such an eminent educator as Dr. Eliot and embodying, as it does, his father's views on manual training more than seventy years ago, and also his own at this time, it is most interesting.

"Seeing the grave deficiencies of the Latin School's programme, my father took pains to procure for me lessons in carpentering and wood-turning, and provided me at home with tools, a carpenter's bench, and

a lathe. He also furthered a desire I felt—in common with a fellow pupil of the Latin School—to set type and issue a four-page weekly paper, each page about six inches square. We seldom wrote anything for this paper, but we did set the type, work the hand-press, and correct the proofs. In these various ways I got some good training of eye and hand, for which the programme of my school made no provision whatever. Till I was twenty years old I had no practice in drawing, either mechanical or free hand—a serious loss."

What applies to the hearing in this respect applies in an even greater measure to the deaf on account of their difficulty in acquiring a good command of English. Cases are not uncommon where boys who make practically no progress in the schoolroom are the most promising mechanics and most willing workers in the shops. They cannot memorize or understand a simple lesson in English describing Dorothy Doris dropping her darling doll and dirtying her dainty dress, but they can tell of their mechanical operations in quite accurate language. In abstract problems in arithmetic they are equally dull, but when it comes to the figuring on the quantities and cost of material in a piece of furniture or other article, the construction of which they are familiar with, they can do creditable work even in fractions. Examples are told of boys and girls who could not solve any problems involving fractions; yet these very pupils would unconsciously employ fractions in handling material in the work-rooms. This shows the inability of some pupils to think in the abstract.

I am personally acquainted with men who, while pupils in school, made but poor progress mentally, and are now foremen of departments in manufacturing plants. And I have known girls who could rarely pass an examination in the schoolroom. These same girls

are now women and excel in handiwork of various kinds, in domestic science, and as wives and mothers.

In such cases of limited mental activity domestic science and constructive tool-work furnish the training that leads to the results above mentioned while English composition, grammar, and kindred subjects fail to "make good."

No boy, normal or abnormal, is wholly at his best in the schoolroom; but he will come into his own if he gets what he wants. What does he want? He wants his saw and his hammer, his plane and his chisel, his bench and his lathe, his forge and his anvil, his blowpipe and his crucible, his magnet and his engine; and he wants instruction in their use and their relation to one another. In short, he wants manual training. He wants an outlet for his surplus animal energy. The athletic field and the gymnasium do not wholly satisfy him in this respect. He wants to fly a kite, but in order to satisfy his want he must first make the kite. It may not be a success but he does not mind that much. He had fun making it and he will make another to-morrow.

Manual training, properly conducted, brings out the best there is in the student. It develops all the human faculties, physical, mental, and moral, as no other one subject does. It demands individuality in designs, initiative in execution, and neatness in workmanship. It demands character on the part of the worker. It is disciplinary in that it trains the mind in clear thinking and the hand to accuracy in action. An error in measurement or a misapplied stroke with the hammer will leave its mark of inaccuracy and poor workmanship on the finished article.

If the young man is deft in the use of drafting instruments and desires to devise decorative designs; if he

wants to learn lettering or work in wood; if he wants to make a machine or invent an engine; if he wants to experiment with electricity or observe the actions of a model aeroplane; if his mind turns to metallurgy or his fancy to factory; if he wants to build a building and furnish it with furniture from his fertile brain factory, why, manual training encourages every effort to test his creative capabilities. No one says him nay. It offers a vast variety of operations and affords activities in an endless number of industrial enterprises. Its influence upon the mental development of the young, the deaf as well as the hearing, is very great indeed.

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EASY AND NATURAL SPEECH.*—III.

You remember the general plan of work as taken up by Professor White.

While we shall continue working on the breathing and the resonating cavities, we will now take up the fourth point, work on the larynx.

Mr. Charles Lunn says in his book entitled "Philosophy of Voice":†

"When Galen discovered and proclaimed the use of the false cords as supplying a point of resistance capable of ruling in varying proportions, or completely suspending the escaping breath, he, so far as physiology and natural physics is concerned, settled the question of voice forever."

The principle on which Professor White works is that advocated by Lunn, namely, that voiced air is restrained and controlled by the false cords and that control of these cords is necessary in order to get proper resonance, tone, and quality.

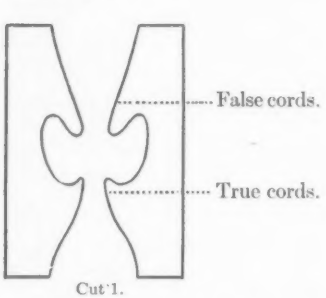
*Continued from the *Annals* for November, 1914, vol. lix, page 451.
†Pubilshed by Bailliere, Lindall, and Cox, London.

Before going into the way in which this may be done, let us try to understand this theory of voice production.

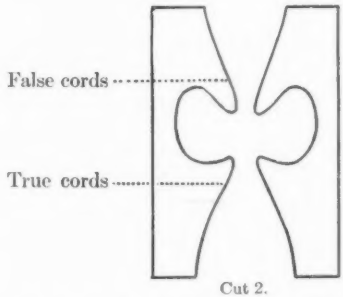
Cut 1 represents the organs producing voice falsely, incapable of ruling the escaping air.

Cut 2 represents the organs producing voice correctly; *i. e.*, the false cords ruling and resisting the stream of air.

The true cords, as you see, are placed in such a way that, by the laws of physics, the muscles controlling them cannot resist the stream of breath. The false cords, being set against the upward stream of breath, if under control, ensure perfect closure or any degree of opening to allow the upward stream of breath to go through.



Cut 1.



Cut 2.

The principle is the same as that of a lock set with the apex up-stream, ruling the water which flows down upon it. The greater the force of the current, the more firmly it closes. This is the action of the false cords.

If the lock is set in the direction of the current of the stream, the water rules it instead of its ruling the water. This is the action of the true cords.

All authorities do not agree on this theory.

To quote from "Voice, Song and Speech," by Lennox Browne and Emil Behnke:*

"It is doubtful whether in any case the false cords can be sufficiently pressed together behind to make the closure really tight. * * * [This opinion is based on experiments with dead larynges.] But how-

*Published by G. P. Putnam's Sons, 1891.

ever this may be, it is certain that in the production of voice the false cords while in a healthy state *never* meet, and that the glottis alone is closed." [Glottis here meaning the opening between the true cords.]

The authors give some three pages to remarks on this theory and end by saying:

"There is consequently not a vestige of foundation for the theory [that the escaping stream of breath is controlled by the false cords] and we hope we have heard the last of the 'shock of the upper glottis.'"

If you will read Lunn's "Philosophy of Voice," published in 1906, you will find the following in the chapter entitled "The Upward Road:"

"Physiologists have shown that the true cords cannot perfectly close by the muscles ruling them, as the pressure brought to bear is too great (1000 lbs.), but by my explanation of compressed air ruled by the *false* cords and ventricles, perfect closure can be ensured, and smooth sound *cannot* be produced in any other way."

Now, as a matter of fact, it does not make a particle of difference to us which of these authors is right and which is wrong. The only thing that concerns us is that it is possible to get control of *something* which will give good tone and good attack, help resonance, and utilize every particle of power in giving voice by conserving the breath. It makes no difference whatever whether this particular something is the false cords, the true cords, or the space between them—the point is to get control of it.

I will speak of it as control of the glottis, glottis being a term which may mean, according to different authorities, the true cords, or the space between them, or the false cords, or the space between them. You can take it to mean whichever you like.

The theory of the false cords being the ruling agent seems more logical to my mind and I shall speak of them as such, but if to your mind control of the glottis means the same power of ruling the true cords it makes no difference; for, as I will show you later, these authors

whom I have quoted who disagree so heartily are doing exactly the same thing though calling it by a different name.

Now how does control of the glottis affect speech and what will it do for our pupils?

1st. Resonance and breathiness are incompatible. If we get good tone we must save breath; therefore if the office of the false cords is to control and restrain the stream of breath, being able to control them will give better resonance.

2d. Control of the glottis will prevent weak breathy tone by enabling the child to conserve all the breath not needed for voice.

3d. Strength of attack of any sound depends upon its control.

In September I tested every class in school on *p*, *t*, and *k*, initial, and *b*, *d*, and *g*, both initial and final. The words taken were *pan*, *ban*, *tan*, *Dan*, *coal*, *goal*, *tap*, *tab*, *not*, *nod*, *back* and *bag*.

You know how these tests were given. I wrote the words on the slate and, as the children spoke them, Miss Pybas and the teacher in charge of the class, who could not see the slate, told what they said. If the two teachers disagreed, the child was given another chance. If both teachers thought the child gave *p* when he was trying to give *b* or vice versa, I put down a cross. Nothing was considered except the particular sounds named.

The results were as follows: Out of 215 children examined, with the exception of several semi-mutes, only three children made the distinction between every vocal and non-vocal sounds so clearly that both teachers could tell without hesitation what each one was, both initial and final.

The reason that I made this test and one or two others was that the first tangible result I saw of the work with Jennie on control of the glottis was the difference in the attack of the vocal consonants, and I wanted to satisfy myself on two points: first, whether or not any exercises which might have been previously given in the school for such control had produced the desired results, and, second, whether or not Jennie's being able to give this distinction between the vocal and non-vocal consonants was due to work on control of the glottis.

If I had found that the children as a whole had been able to make a complete closure of the glottis at will, the test would have proved that Jennie's being able to make the distinction between vocal and non-vocal consonants was *not* due to this control. But as in September she was, so far as I could discover, the only child in the school who could get *complete closure* at will, the test convinced me that the reason there are so many indefinite voice consonants among our children is that, as most of them have never brought the cords together, there is an escape of breath which prevents getting the true voice sound of the vocal consonant, while there is sufficient voice to prevent its being a perfect breath consonant.

The question of how to get control of the glottis, just where in the grades it is best to begin, and whether or not it is advisable to try to get it in the lower grades at all, is one we shall have to work out for ourselves.*

There is one thing however I cannot impress upon your minds too strongly, and that is that, while control of the glottis is necessary for good tone and good attack,

*In experimenting last year we found that complete closure of the glottis could be obtained without strain or constriction the second year in school and, in one or two cases, the first year.

unless one knows exactly what he is trying for and exactly how to get it, it is possible to do a great deal of harm by going at it the wrong way. A teacher must first be sure of being able to control her own glottis before attempting to teach children to do it.

The starting point to get good tone is to get the breath stopped automatically by the glottis.

The first step is for the child to find his glottis and know by memory of the sensation when he is closing it.

This may be done in several ways, as:

1. By reflex from breathing.
2. By analogy from *p*, *t*, *k*.
3. By giving a very slight cough.
4. By gagging.
5. By giving whispered short *u*.

(The way last named may be used to advantage by those who have had hearing, but most of the deaf have no idea of a whispered sound.)

The first is by far the best, if you can get it, and has the least possibilities for doing harm, as it gets the will entirely out of the process of closing.

This closing of the glottis is what is known among singers as the *coup de glotte*. Garcia, who named it, said that he did not *invent* the *coup de glotte*—he simply took what he found in nature and named it.

To get closure of the glottis by reflex, take a full breath, then let it all out at one impulse, letting the child feel it with the hand. Then take a full breath and rest or lean on the breath, making the child conscious by holding his hand before your mouth that there is no breath escaping.

(Resting or leaning on the breath is an act of holding the breath, but the mere fact that the breath is held does not necessarily mean that the glottis is *closed*, as the act of breathing can be suspended for several seconds

either in inspiration or expiration with the glottis open. If, however, after taking a deep breath, we draw in the diaphragm and hold the breath while retaining the impulse to exhale, the air which is pushed up against the false cords tightly closes them.)

While leaning on the breath place the child's other hand below the larynx, open the glottis, and let the breath out in one impulse.

(In feeling closure of the glottis and tone, always feel it *below* the larynx, as the recoil can be plainly felt there and no possible harm done.)

To get closure from analogy from *p*, *t*, and *k*, breathe, rest, or lean on the breath, then give *p*, letting all the breath out at once. Do the same with *t* and *k;* then do the same, opening the glottis with one omission of breath.

Professor White goes at this in a way to interest the children. He explains to the child that he has four mouths, one at the lips, one at the point of contact for *t*, another at the point of contact for *k*, and the other in the larynx, and that he can open and shut each at will. He then shows the child that the action is exactly the same.

The closing of the glottis may be described as a very slight cough and you can sometimes get it by asking the child to give a little cough; but beware how you try to get it by actually coughing, for if you do you will not only be doing just what has brought the so-called *coup de glotte* into disrepute among some voice teachers, as being wholly wrong and productive of only disastrous results, but you will be likely to have a sore throat as a result.

A child may sometimes get the idea and sensation of closed glottis from the natural function of gagging, but unless the teacher is very careful the pupil will get

the idea that closing the glottis is a violent action rather than a perfectly natural and easy movement.

It is sometimes difficult to tell from the sound whether a pupil is giving closure of the glottis or closure above. I was working with a pupil a few weeks ago to get closure of the glottis and I was not satisfied that I had got what I was working for, because, while sometimes she seemed to give it, she could not do it the same twice in succession.

One day I tried the exercise given in "Voice, Song and Speech" for firm and clear attack. The exercise as given is:

"Pronounce vigorously the word *up*. Then whisper, but still very vigorously and distinctly, the vowel *u* as you just had it in the word *up*."

It is interesting to note that the authors who declared there was not a vestige of foundation for Lunn's theory of closure of the false cords are in this exercise striving for exactly what he advocates, in order to get good tone.

The pupil I mentioned got the closure at once from this exercise and cried in delight, "Now I have it. I can feel it. It is the first time I have done it right." She, however, had had hearing and knew what I meant by a whispered *u*.

When we lift a heavy weight we instinctively hold the breath, which means that the entire pressure comes against the closed glottis. A child may get this feeling of pressure and closure by having him try to pull up a heavy weight.

You remember Miss Yale gives an exercise of trying to pull up a weight while prolonging tone. This is an exercise to strengthen the voice and is not to be confused with the one I have just given, whose object is to make the child conscious of closed glottis by feeling the pressure of air against it.

Whatever way we go about getting control of the glottis we want to remember that the aim is to get automatic action of the glottis and throat. When the glottis shuts, the throat should be open. When there is sympathetic opening and closing of the glottis and throat there is always weak, constricted tone.

When complete closure of the glottis is secured the following exercise should be taken every day: Inhale, hold, then spin out the breath while opening and shutting the glottis.

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[TO BE CONTINUED.]

ILLUSTRATIVE CHARTS FOR GEOGRAPHY TEACHING.

SINCE the deaf receive most of their impressions and gain most of their knowledge through the eye; and since so few deaf children do much traveling, geography is apt to be a "dry-as-dust" subject to them, especially so if they live in one of the prairie states, and have never seen hills, rivers, etc., etc. If their parents are pioneers and are developing a new country we shall find very many common things which they have never seen. For instance, in the North Dakota School, where I taught several years, there were pupils nineteen years old who until they came to school had never seen an apple-blossom. There were many who did not know the difference between a rose and a carnation. Of course there were a few native flowers they did know.

A few had been to a circus and knew some of the more common animals, but could not tell their native homes.

Again with respect to foods there was the same lack of knowledge. They did not know the names of such common things as raisins, dates, figs, tapioca, grapefruit, etc., etc., or where they came from.

Different kinds of cloth, of what and how they were manufactured; common medicines such as quinine, opium, camphor, etc., were all unknown.

Since what we make or do leaves the strongest impression on the mind, I decided to have charts made that would present to the eye these very things and to have the pupils make these charts themselves.

Accordingly I drew a large outline map of the world and separated it into zones, showing that their boundaries are not everywhere parallel. From old geographies, other discarded text-books, papers, magazines, etc., we cut all the pictures of animals.

Then as we studied each zone we pasted on the chart the pictures of the animals found there. The pupils did all the work, I only watching to see that they did not put a camel in Greenland, or a boa-constrictor on the Great Desert. They grew quite excited over it and found that animals living on the tops of mountains are similar to those in the far north. Dog and reindeer teams were properly placed also; different styles of houses, from the Eskimo's snow-hut and the Indian's wigwam and tepee to the houses on stilts, and the reasons therefor. Cities, factories, ranches, took on a new meaning.

The greatest obstacle is the fact that all pictures are not on the same scale, which may give an erroneous idea of the relative sizes of some animals unless one is careful to explain.

This plan proved so successful that we made a relief map of the United States with salt and flour, painted the waters blue, and then pasted on the products.

There was more trouble in securing all the products, but the pupils got busy and brought in many things (in small pieces): lumber, iron, copper, cotton, cloth, leather, paper, rice, wheat, corn, rye, coal, salt, etc., the important products of each section of the country.

In this relief work it was very plain why rivers flowed *to* instead of *from* the ocean.

Not only was the class studying geography interested, but all the other pupils in the room as well—and occasionally they would help a little.

South America and Europe may be treated in the same way. If the products desired cannot be obtained pictures will have to take the place of the real things.

Spices are very interesting, as they are almost entirely unknown—and, when known at all, it is only in the form in which they appear in the kitchen.

In connection with this come the routes of travel—not only of passenger traffic, but of freight—what load is taken on and put off at each stop and why?

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MENTAL DEAF-MUTISM.

THERE is a place for sensitiveness in every human being and there is a place for its utter absence. There is nothing that reveals the high-minded person more clearly than knowing when and how to be sensitive. Dr. Henry Clay Trumbull once treated this subject in his incomparable manner in the *Sunday-School Times.* We do not recall the entire presentation of the theme but after showing the desirability of avoiding all undue sensitiveness, of how it too often betrays a self-centered spirit and inevitably leads to dislike on the part of

others, who can find little pleasure in an individual whom they must always be careful not to offend, he wrote of the other side of the subject. He said that the sensitive person who is sensitive in the right way is the one whom God chooses for his finest and highest work, for the work that requires extreme delicacy of perception and of handling, together with an all-comprehensive grasp of the situation and the power of feeling the issue thereof to human hearts.

There is something in the very nature of deafness to promote sensitiveness, and then there is such a great difference in the mental outlook (other things being equal) of those who were in the hearing world some years before they became deaf, and those who were never in that world, that another and deeper impulse is given to sensitiveness on the part of those who are by an unthinking and uninformed world classed among deaf-mutes, but who know that they live a very different kind of thought life. Then all along the way between the one who was born deaf and the one who went into silence in adult years with a well-stored mind and highly cultivated faculties, there are those who have suffered mental and social deprivation in different measure by the coming of deafness, developing a highly different degree of sensitiveness in individuals, according as the person is naturally proud and oversensitive or the opposite, or according as the family of the deaf person is proud of him or ashamed of him.

Often the very first contact of hearing people with the deaf arouses such queries as these: "What makes them grimace so?" What makes them use such funny motions?" "What makes them use such queer English?" All these things seem undesirable, and bring the method by which they are instructed under suspicion. The writer believes that right here the movement for

oralism alone in the instruction of the deaf had its beginning. (She would have been an oralist herself had the movement come before she knew the difference.) The parents of the deaf want them to be like other people, and to be like other people they must use speech and not those outlandish signs. They perceive not that the chief deprivation is a mental one. And as there is nothing the deaf themselves so much desire as to be considered like speaking people, many of them go along contentedly for years under this method of instruction until they learn something of the freedom and gladness and far more rapid mental expansion possible under the combined system of instruction.

This brings us to the consideration of the real topic in view when this article was begun; viz., that deaf-mutism, as an affliction, is a thing of the mental life far more than of the auditory nerve, and that against mental deaf-mutism the battle should be waged. Nothing can help in this warfare so much as the attitude of the deaf themselves. To get into the thought life, the mental outlook, the source of the ideals of the best part of the hearing world, should be the constant ambition of the deaf, and the right-minded among them will pass by no opportunity to learn something they do not already know, will allow no petty sensitiveness to interfere with or hinder this aim.

The poor boy, who after several years of attendance upon an oral day-school was yet unable to answer the simplest written question, and who scornfully refused to learn the manual alphabet or any signs he could avoid, yet who expected his tired teacher to labor hard in natural pantomime to help him understand his mother's letters, is an example of foolishness on one side. Those who were born with hearing, yet not enough to get into the conversation, and through that

into the reading, of the hearing world, and who plume themselves on their ability to hear some whistle or bell or other noise a semi-mute cannot hear, are examples of foolishness on another side. That the blind are given to the same pride over ability to see a little is brought out in the pathetic story "Red-Bird He Can See" by Miss Montague.

There is a certain pathos in this situation—the ardent desire of the deaf and the blind not to seem different from their fellows. It is such a *natural* feeling. The most unnatural dinner party the writer has had knowledge of was one given by a certain lady who selected for guests mainly those among her acquaintances who were hard of hearing—a class of people who want to be helped to forget their deprivation, not to remember it. That hostess probably meant to be sympathetic, but there is a fine, high, kind of sympathetic sensitiveness that easily opines that the way to make the unfortunate forget their lack is to treat them as though it did not exist, or when this is not possible as though any inconvenience it occasions is of no consequence.

Now if deaf-mutism, so far as it differentiates the deaf from the hearing, is mainly a thing of mental horizon; if the deaf-mute lacks breadth of view, many-sidedness in judgment, the power of the fine and high distinctions that regard life from many angles and different standpoints, it is not only because the education began several years later than with the hearing child and must be carried on with lamentable slowness, but because there is a difference in the base of supplies when mental activity is concerned. Does not the difference lie mainly here? The sub-conscious mind of the hearing is richly stored with material for thought and for flights of the imagination, as the mind of the person who was never in the hearing world cannot be.

We put it this way because one may meet with deafness early in life, yet if the hearing world has been entered before it came, if the great field of literature has been opened by a natural love of reading, if the person is vital in temperament, thus easily seizing upon material for thought, and apt in applying what is learned to life, character, and religion; if there dwells in them that spirit which never ceases to learn, and which is eagerly upon the lookout for everything and everybody that can add to the mind's store; especially if there is the constant effort made to live above all petty narrowness and to find out why the same things often affect hearing people in a different manner from what they do the deaf and vice versa, and to try to be only like high-minded hearing people, then that person is not a deaf-mute mentally and never will be, although the auditory nerve be wholly dead.

It may be claimed that many hearing people live no such mental life as here pictured. Very true. We wish to be clearly understood as always making the comparison from the standpoint that all other things except the ability to hear are equal. It is in their own circle and environment that judgment is passed upon the deaf. It is with the people with whom they live that the comparison is made—not with those living in an outstanding realm. In their school life their critics are mainly teachers and other well-educated persons and the criticism they there receive is apt to be severe in comparison with what it will be for many of them out in the world. On the other hand, out in the world there will often be an unsparing, unsympathetic criticism such as a teacher could not give who knows how to value what has already been accomplished.

Right here is where the deaf person's mental attitude towards criticism is of importance. Instead of being

resented criticism should be desired, even though it may hurt. At school the standard is constantly held before the pupils and they are prodded on to try to attain greater excellence. The more successful are often injured by being held up as models to the slower or more slothful. They go out with an exalted idea of their own attainments. They go into a world not concerned about their future improvement, but which will not fail to notice any deficiencies. Some will go into homes that will be proud of them, no matter how shamefully they may have neglected their opportunities according to the judgment of teachers; occasionally one who has been the joy and pride of his teachers will go into a home to meet dissatisfaction with the result of the work of those teachers. It is a large world. There are many men of many minds.

Now if the deaf want to choose their associates only among the deaf—always an unfortunate thing—if they want to be content with looking at life only in that little circle, where is the source of improvement? Of course matters in this respect have greatly improved since Gallaudet College has multiplied leaders for the deaf; but still should not the constant attitude be that of mental alertness, lest some finer shade of culture be missed by over-confidence? An open, frank mind that seeks criticism for self-improvement will always be highly respected. You cannot fasten the badge of inferiority upon one in possession of that spirit. It is an evidence in itself of superiority. To walk with uplifted head saying "I will know," and to blush never over not knowing, but only over not caring to know or refusing to learn because of pride—this will secure respect.

Perhaps in no kind of a world is there any greater difficulty than in knowing how to stand for one's rights

gracefully and with true vision. If ever one wants to be sure of the facts it is when standing for one's rights, and it is the occasion of all occasions for the exercise of courtesy in words and demeanor. To be forceful without being vehement, to have convictions without being dogmatic, to be well-bred and modest while standing like granite for what one believes—none of these things are easy except to those whose whole lives have been in that current whose main stream is made up of refinement, dignity, and self-restraint. None of us can afford to have the manner in which we advocate a cause make our superior friends be unwilling to be associated with us in that advocacy. The deaf in their fight for their natural right to happiness and more rapid mental growth through the use of the sign language can not afford to give their cultured opponents opportunity to say, "Well, whatever the sign language may do for them it does not give them culture," because of the spirit in which that fight may be waged.

The way to be considered superior is to go to work and be superior. If people do not find it out at once, they will find it out in time. Association is a great revealer of character, and time a great leveler for those who claim too much. Neither suspicion, nor envy, nor ill-natured remarks, nor servility, nor cowed and silent submission to that which should not be, is the path to either self-improvement or just recognition. To see everything in its proper relation to other things, to see all things in their proper proportions, comes to none except those who are constantly pursuing that undefinable thing called culture. No one can afford to allow personal feeling to interfere with what one may learn from unpleasant things. If the deaf would be like the hearing they must get into the mental life of the hearing, must live in the same kind of a thought-world—that is

all there is to it. Who could think of Dr. James Potts, owner and editor of the *Michigan Christian Advocate*, as a deaf-mute, although he has been totally deaf for many a year? Here is a man who has long stood among the leaders in his own denomination, attending its most august body—the Methodist General Conference meeting every four years—with his own private secretary at his side to take down everything in short-hand for his perusal, and he himself speaking on the floor of that conference. His services were once sought for the editorship of one of the denomination's great weeklies—an honor all the more pronounced because many men in possession of all their senses would have been glad to be elected to the position; but he preferred to continue at the head of a periodical owned and controlled by himself. Yet the writer has seen enough of deaf-mutes to make her think that some would immediately class him among themselves simply because he cannot hear. Only yesterday one remarked of a hearing co-worker: "She is almost the same as I, for her ears are nearly closed"—a most surprising bit of information to one who had frequently talked a little with the lady in question without finding out that she was hard of hearing at all.

There can be no doubt that the all-consuming desire of parents to have their children educated by the oral method is the desire to have them be and seem like hearing people. To have them talk by speech and to have them not use signs seems to those parents the *summum bonum*. But is it? Whether the child speaks or not, whether the deaf person uses signs or not, is it not the main thing that he or she become conversant with men and affairs, with the sources and uses of high ideals, with books and literature—in short that they get the outlook of the hearing world? For this the power to use by speech and lip-reading a limited

number of conversational sentences and phrases is not sufficient. The *mind* must be fed by many a stream from early life to make it possible, and must be constantly reaching out into the very same realm of thought, feeling, and action as hearing people dwell in. Whether these mental touches come by speech, by lip-reading, by writing, by reading, by observation, by the quick thought-conveying process of signs, is immaterial. The point is to get there as quick as you can, and as often as you can, and frequently the medium of the sign language is the quickest road. There has been much said about restoring the deaf to society by educating them through the processes of oral teaching alone. Our observation is that where radical oral teachers are concerned—those who would not under any circumstances learn the manual alphabet or use any kind of signs—the deaf are most severely let alone in a social way. Such teachers make an atmosphere about them as though for another to be unable to understand speech relieved them from all social obligations. The deaf person, if high-minded and sensitive, naturally does not like to be considered a nuisance, and that is what one generally feels oneself to be after two or more ineffectual efforts to understand the spoken word. And he feels it is unfair, when a little manual spelling would have prevented the mortification. One has often pondered upon the total reversal of the common law of politeness involved in this situation. To make people feel comfortable, to make them forget as far as possible any affliction that hinders the sharing of the common life: this is true courtesy.

This may seem to be a digression from our main theme—that the evidence of deaf-mutism lies mainly in the character of the mental life—but really it is related to it, for nothing handicaps the mental life like

inability to have free social expression, and nothing sours and perverts and tends to promote undue suspicion and sensitiveness on the part of the deaf like the inability to have happy social experiences with the life about them. The purpose of this article is to emphasize the importance to the deaf of strenuously cultivating their mental life and taking advantage of every opportunity of getting into and sharing the hearing world and avoiding all suspicion and over-sensitiveness.

L. C.

GENERAL SUGGESTIONS TO TEACHERS.*

Discipline.

1. Few and quiet signals are indicative of strength in discipline.
2. Cultivate firmness and decision with gentleness.
3. Do not forget and neglect your own requirements.
4. Competing with children in smartness is unworthy of a teacher.
5. Be not suspicious and hasty in attributing a fault to a child.
6. Self-reliance can be strengthened by preparation, will-effort, and experience.
7. Be fair-minded and just.
8. Secure the respect of children by honest dealings.
9. Have pupils enter and leave your room as quietly and as orderly as possible.
10. Use your eyes. See what is going on in the room.
11. Avoid scolding and censuring in the class and before the school. In general reprove privately and make it effective.
12. Have all books, erasers, crayons, and the like returned to their proper places a minute before the whistle blows.

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*From the Year Book of the Nebraska School, 1911.

13. Insist that each pupil keep his desk in a neat and orderly manner. Tolerate nothing slovenly in work, general appearance, or condition of schoolroom.

14. Use the English language in the schoolroom for all purposes in communicating thought, and likewise outside the schoolroom to the largest extent possible.

15. Insist on a quiet, orderly room. See that pupils utilize all the time alloted to them for studying.

16. If a pupil should ask something the teacher happens not to be familiar with do not be afraid to admit this. Tell the pupil you do not know but will look it up. This will create a respect for you—especially for your candor, and will at the same time show the pupils that you, too, are a student, eager to learn more.

Plan and Preparation.

1. In planning a lesson, keep both children and subject matter clearly in mind.

2. Each lesson should have a distinct aim, which brings the topics into natural sequence.

3. The aim should be to touch the central point of the lesson, approach it from a similar side, and should be simple and concentrated in its statement.

4. A well-planned lesson gives greater freedom for happy inspirations of the moment. Abundant and clear knowledge of the subject is the teacher's best reserve.

5. Learn to make plans that can be carried out.

6. No one discovers lack of preparation on the part of the teacher sooner than the pupils.

Assigning Lessons.

1. To assign a lesson is a critical and difficult task.

2. Take sufficient time before the end of the period to assign lessons.

3. Be simple and explicit, avoiding all uncertainty.

4. Preparation for assignment is as important as for recitation.

5. Create an interest in the new lesson by the manner of assigning it.

6. Assign lessons of a length to keep pupils busy during the study period; then insist on thorough mastery.

7. Call to mind previous topics and principles which may be of service in studying the new lesson.*

Securing and Holding Attention.

1. To strengthen the habit of attentiveness in children should be the fundamental aim of every teacher. Teachers are too careless about holding the attention of the whole class.

2. Involuntary attention must depend on interest in the subject. Voluntary attention depends, first, upon the will of the teacher; secondly, upon the will of the pupil.

3. The position of the teacher and the pupil should aid attention.

4. Good work of any kind may not be had by merely asking for it but by insisting.

5. Weak control and weak instruction leave a class in the condition of an unstrung violin. No response can be elicited.

Instruction.

1. The teacher is a guide rather than a lecturer.

2. Study the general plan and purpose of your text-book.

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*Here follow some suggestions on "The Art of Questioning" which were published in the *Annals* for May, 1912, pages 304 and 305.

3. A teacher should be laconic and the master of his tongue. The more a teacher is habituated to talking the less the pupil thinks.

4. As a rule do not explain what some member of the class can explain.

Board Work.

1. Have pupils, as far as possible, correct their own work.

2. Accept nothing but good penmanship at all times. Exact neat and well-arranged work.

3. Keep the boards from careless and unnecessary marks. Each teacher should leave the boards in good shape.

4. Children should be kept strictly independent of one another in board work.

5. Let the board work of the pupil be careful and thoughtful. Check the habit of erasing and rewriting.

Personal Manners.

1. Acquire self-control and confidence.

2. A sincere and hearty manner is very desirable.

3. Social tact is all important to a teacher.

4. Confidence in the pupils and sympathy for them encourage like feelings in them.

5. Children should be required to show a kindly and respectful manner to schoolmates as well as to teachers.

6. Scraps of paper should be kept from the floor and desks.

7. Do not waste paper or any materials furnished by the school.

8. Let children keep their hands clean and their persons neat.

9. Written papers, handed to the teacher, should be clean, with well-cut edges, and adequate in size for good work.

Observation of Children.

1. Some children need to be studied carefully by the teacher, because of their peculiar disposition.

2. A knowledge of the home surroundings and habits of the child may help the teacher to appreciate and sympathize with him.

3. Personal and kindly conversation with a child when school is not in session will often help both teacher and pupil.

4. Observe children on the play-ground, on excursions, etc., where they express their disposition and their individuality more freely.

How Time is Wasted.

1. In not having a well-defined plan of work. In not keeping clearly fixed goals in mind and pressing the work towards their accomplishment.

2. In lecturing too much about good order, behavior, rules, etc., and forgetting to execute promptly and steadily requirements previously made.

3. In not watching the whole class, but confining the attention to one or a few reciting.

4. In repeating answers.

5. In trying to force an answer from a child when he is manifestly unable or unwilling to give one.

6. In waiting too long for the poorest members of the class.

7. The teacher talks and explains too much.

8. In disputing with pupils.

9. In loose and unpremediated assignment of lessons. Thus questions, disputes, and explanations arise.

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WORKING PSYCHOLOGY FOR NORMAL CLASSES.*

THE simplicity and workability of the main principles of modern psychology are not yet fully recognized by all teachers. As megaphoned through the Sunday newspapers and some popular magazines, the so-called "new psychology" is a harlequin—a startling mixture of spectacular surgery, will-o'-the-wisp pedagogy, and false mysticism. By partially informed disciples absurd extremes are reached in statement and prophecy: The doctrine of original sin is replaced by the theory of adenoids; the psychical state in children formerly called naughtiness no longer exists; criminals are to be reformed by general trepanning; the surgeon's knife is to bring in the millennium. Psychical research is worked overtime; every man may have his own pet spook. Mental therapeutics would seem to be running amuck when the legislature of a state calling itself "Empire" passes a bill actually permitting anybody to practice healing the sick by any psychical method which seems to him good and profitable—especially profitable. A sentimentalist out of funds may quickly replenish his purse by publishing a magazine which professes devotion to the subject of "Child Study." As a money-getter, eugenics runs a close second with such widespread effect that blushing is rapidly going out of fashion. The rôle of Mr. Podsnap's "Young Person" is completely reversed. We say everything about him and her, before him and her, these days.

One school of zealots urges parents, and commands teachers, to preserve in writing (with a view to its ultimate sale in print probably) every possible detail

*Read at the Twentieth Meeting of the Convention of American Instructors of the Deaf, Staunton, Virginia, June 30, 1914.

of a child's experience from the time when he first uses a pocket handkerchief unaided up to a solemn entry like this, which is preserved in a doctorate thesis in the Library of Congress: "At the age of nineteen H. does not like parsnips, cabbage, or carrots, although when he was six he was very fond of those vegetables."

All this kind of stuff, and much more similar foolishness, passes current in many quarters today under the name of psychology. Meanwhile, fortunately, the work of William James remains—the shadow of a great rock in a land of shifting sands. Psychology is a vast field whose deeper tillage must be left to a few skilled experts. Our little toy-rakes are not needed. Hugo Münsterberg did us teachers good service when he told us, a bit brutally perhaps, that only the educational and ethical aspects of the great science concerned us in our work. James's "Psychology," briefer course, and his "Talks to Teachers" are all the tools we need to build for ourselves and for each of our children a fair House of Life with many windows and doors opening toward the light of shining, far horizons.

Usually we find each year that before coming to us our normals have "taken" and cheerfully forgotten a course in psychology. Neither they nor their teachers are to blame for the forgetfulness—only the happy irresponsibility of youth, the one perennially *glad* thing in this otherwise rather somber universe. Anybody who has watched the beautiful river of Youth flowing always through the streets of a seminary or college town will understand why the psychology studied has not sunk in.

But when these young people come to us all is changed for them. They are no longer "seniors" with all the prestige which that magic term has heretofore implied. They are strangers to us and to each other; they are

homesick, probably; perhaps we are not overly patient with them. They are half bewildered, surrounded, as they find themselves, by a to them new order of humanity. All unprepared, they are called on to deal with mind under new and strange conditions, mind handicapped by lack of verbal language, mind with its main avenue of communication—the ear—tightly closed. Artificial speech, lip-reading, the manual alphabet, signs, the normals see, dimly, cannot be used effectively without knowledge on the part of the teacher of mental processes which underlie each form of communication. In short, our new normal students, ambitious to become good teachers, are quite ready to clutch at psychology, or any other "ology" we may offer them, as a life-preserver.

All my normal work at Gallaudet during the first two months of the course is preparatory—a sort of spring ploughing, getting the soil ready to receive the seeds provided by William James. There are thousands of other text-books on psychology, of course, but they are all founded on James's works and are much inferior to his in point of English. Above all, in these days of literary small coin, we teachers ought to urge our pupils to go always to the Master, and not to lesser men, when they seek to know, to feel, and to act.

My preparatory work is concerned mainly with showing the normal class the relations existing between deaf learners and verbal language—the world's practically universal mode of communication and comprehension—a task likely to make any instructor groan before it is approximately completed. Condensed, this initial struggle means that the hearing young men and women, with their innocent college conceit fresh upon them, must be forced, almost literally forced, to use in each of their class exercises, and in their personal com-

munication with the deaf children, easy words, simple grammatical constructions, concrete word or gesture pictures—all vivified by a teaching personality as rapidly adaptable to the nature of the individual deaf child under immediate instruction as quicksilver to a mold. If this endeavor is not a psychological process on both sides then no such science as psychology exists.

Even after the discipline of the blue pencil, the low marks on note-books, the thinly-veiled discouragement of personal criticism, have done their work, the instructor will surely find that at least one normal has escaped the drag-net and is complacently swimming in an ocean of big words and metaphor, to the undoing of the little deaf minnows admiring him.

The linguistic side of consciousness is strangely ignored sometimes by professional psychologists no less than by amateurs. The part that language associations play in the so-called "mentality tests" of Binet and others is curiously overlooked by examiners. Association of ideas which will delay speed in mechanical accomplishments (on which many tests base their results) must ever remain an unknown factor. Making associations takes a part of the allotted time. Hence the subject having the most limited vocabulary, the narrowest mental range, ought to conclude the test sooner than the more intelligent person, for in the last analysis intelligence is measured by the number of connotations or associations one is capable of making. The following "mentality test" was given at a eugenics conference held at Battle Creek, Michigan:

A long list of meaningless letter combinations were given. Subjects under examination were required to cross out all the a's in one-half minute of time. Those who fell below the time limit were marked "Defective" and their mental age thus determined.

I tried this experiment on myself with a view to catching "on the fly" the associations suggested by the letter combinations, writing down the associations hastily as I crossed the a's. The delay in time caused by making the associations I was not able to compute exactly, but I am sure that more than half a minute elapsed, exclusive of the time required for writing, before I completed the first twelve of the hundred or more combinations in the lists. Reversely, subjects unable, for lack of verbal language, to do the crossing out quickly might, or might not, be of good mentality. I made no attempt to create connotations.

The first combination was *leske*. My associations at first glance were as follows: Semitic look of combination, Polish or Bohemian. Visualized four members of Bohemian family with whom I live. Heard oldest child pronouncing it for me, visualized him. At same time there came to mind the line "The noble Kosciusko fell." Fringe of Bohemian history and court of the "Winter Queen." All this rather kaleidoscopic.

The next combination was *evavy*—only association was word *every*.

Dawma brought a visualization of a pink sky with odor of fir balsam and wild strawberries, the scent from Adirondack pastures in the early morning of a June day.

Xatzo looked Spanish; fringe of Spanish history, and found myself repeating line from Whittier's "Angels of Buena Vista."

Cnjaf brought visualization of word cenotaph with mental picture of a row of sandstone monuments in Congressional Cemetery. Saw dome of capitol.

Ahalve, word halve only connotation.

Iwige suggested instantly the German word for eternal, *ewige*, with a fringe of Goethe.

Skap, no association except faint auditory sense of *quickness.*

Aruja brought thoughts of a strong-minded German woman of the sixteenth century, named Argula. Fringe of small court intrigues.

Sugho, associations with word *sugar,* accompanied with visualization of Senator Thornton of Louisiana in a white vest, leaning over to speak to Senator O'Gorman, his seat neighbor in the senate chamber.

Now I do not place much value on this test as I tried it except on one point—that language associations would *invalidate* any result based on time performance.

Children, especially, form mighty queer associations which even their own mothers never dream of their making, nor can explain. Children's letter associations are, of course, largely phonetic but often, nevertheless, are connected with the time and place of the first or strongest consciousness received of the sound or letter. I knew one little girl to whose mind the combination *pla* stood for water long after she knew the right word. "Splash," which somebody had used while amusing her by throwing stones into a lake, persisted for years in seeming to her the sign for water. A little boy of my acquaintance used *triskett* for bad temper. It is well to make our normals understand in the beginning that fooling with *tests* is likely to be a waste of time for them when they become teachers. The mania for reducing everything to marks on the neat pages of a note-book is the curse of present-day education, or non-education. Nobody can be recorded. Life is movement. A note-book judgment is as valueless as a pasteboard photograph when it comes to estimating a personality.

Briefly stated, during the two months of preparatory work in psychology I try my poor best to make every

member of the normal class realize, with acutest self-consciousness, the ten points following:

First: That he, or she, has elected to become for a group of deaf children their main interpreter of the universe during the years of their greatest development —with the heavy and solemn responsibility which such high office imposes.

Second: That language, in its broadest sense, may be defined as self-expression—any form of sentient activity mutually understood by two or more individuals of the same species, from insect to man.

Third: That human language has evolved from two psychological forms of expression—gesture and sound imitation. The hand, man's bodily tool, and the ear, his main protective apparatus, have been, from the beginning, the terminal organs most intimately connected with the human brain's oftenest traveled paths. A special lecture on gesture language is given later in the course in connection with the wonderfully good language work by the manual-alphabet method at the Rochester school under Dr. Westervelt.

Fourth: That for the great majority of the world's population, human language has been evolved mainly along the auditory path. Romanes's chapter is read in which he points out that the deaf-born child inherits a human brain modified structurally by thousands of years of ancestral speech and speech ideation. For our future oral teachers this point is of immense interest.

Fifth: That the term *language* involves two forms of psychological activity—use and comprehension, the latter not passive but, often, more strenuous than the former.

Sixth: That every time an individual takes part in an act of language, either as user or receiver, neural and psychical impressions remain in the sub-, or perhaps

un-consciousness, as habit paths which become easier to travel with each repetition. The pedagogical implications here are plain and numerous.

Seventh: Attention is drawn to the history of human language from the first gesture and the first cry of the infant, through tribal or community dialect, up to national tongues as they exist to-day. Normals are urged to listen carefully to the different sounds they may hear a baby make and to note that every babe utters sounds which do not come within the range of the language which has developed into English. Some sounds in foreign languages are considered as well as different language inflexions. Animal sounds, evidently understood by individuals of the same species, are noted.

Eighth: That very early in human development thought growth and language growth become closely intertwined and remain inextricable until the brain tissue is destroyed by disease, accident, or death.

Ninth: That while, contrary to Max Müller, thought of even a rather virile nature may exist without verbal language (see the experience of Melville Ballard quoted in James's larger work on Psychology), extensive mental growth is possible only through word associations, especially in the realm of abstract thought. For connotation verbal language far excels any other known agency. A man's world is just as wide as the number of connotations he makes, and no wider. The "fringe" of consciousness, as James calls our background of connotations, is of prime importance. Make the normals see how handicapped in this matter of word associations their deaf pupils will be when they first come to school.

Tenth: The miracles in personality wrought through verbal language! Conversion to religion, to commonsense, to altruistic service, come mainly through the

influence of somebody's inspiration revealed through language. That arch-psychologist, Mephistopheles, in Faust, says: "Civilization is led largely through words." The normal class must hear over and over again, and respond to the judgment of Wundt: "Language is the most complete and manifold manifestation of mind and spirit—in other words, the most complete psychological process known to us."

After all is said and done, the vital question for normal classes is not "What shall the teacher of the deaf do with psychology?" Instead, the more important query is: "What may psychology do for the teacher?" For us all this question is solemn because of certain narrowing tendencies which blight every one of us more or less. Fine protesting phrases about "devotion to our work" cannot save us. Cant phrases are like sticky, clinging, useless briars which often obstruct progress more effectually than a high stone wall or than the traditional "lion in the path."

We all know that some of the normal students who come to us generous, enthusiastic, quick-witted, sympathetically responsive to the points of view of childhood, no less than to larger world calls, become changed beings before they have taught a decade. Increasing age is not responsible for the change. Those once tolerant, genial, humor-seeing boys and girls have become narrow, fussy about trifles, critical of the executive head of the school and of their fellow-teachers, censorious, and collective-minded toward their pupils. In short, two soul-deteriorating psychological influences, left uncounteracted, have done their work as effectively as the codling moth does his in an orchard. The two causes are, usually, too constant association with, and petty authority over, immature minds; and, secondly, the continual pricking and stinging (too much magni-

fied) of disagreeable features and small injustices which are the adjuncts frequently of institutional life.

Now to offset this dark picture, what has psychology to offer? Mainly: William James's two chapters, Habit and Attention—the latter to include as an extension the chapter on Will or Effort.

Thirty years' observation as a hanger-on in Congress has convinced me that the American man (thus far the noblest work of God), when confronted by crises always asks two questions:

"What is the matter?" and "What are you going to do about it?" The chapter on Habit may be made to answer the first question, and the chapter on Attention and Will the second. A third important question: "How shall the pentecostal flame which must feed effort be constantly sustained?" is answered by the chapters on Interest and Emotion.

An experienced teacher of the deaf said once in conversation that he would like to have James's wonderful chapter on Habit read aloud at least once a year from the rostrum of every higher institution of learning in the land. The crux of the chapter is that Habit has a physical basis, with the potentially tremendous corollary that control of many physical processes, especially those of thought direction and motor impulse, lie largely within one's own hands. The chapter on Attention shows the freedom of choice as to the things we may attend to. The chapters on Habit, Attention, and Emotion are often of great pathological value to neurasthenics—and every teacher is, potentially, a neurasthenic. In fact, as a great psychologist has pointed out, the main part of the world's advance in civilization is due to neurasthenics who have learned to conquer their empty nerve cells—from Saint Paul to Darwin, and before and since those two awakeners of human kind.

A special talk on the possible aid of psychology to nervous disorders is given the normals each year. Summed up, James's prescriptions for neurasthenic fear is contained in the following maxims which I heard him give in conversation to a teacher who was at the time a nervous invalid:

"Understand the cause which makes your nervous system shy off from certain acts or thoughts like a frightened horse from a wind-blown paper. Then say to yourself, 'This is but a piece of luggage which I must carry awhile. I will carry it as easily as I can, resting often along the way.' "

Again he said: "Try to live outwardly as if you did not have these feelings. When they are at their worst do something for some one else, even if nothing more than cutting out a paper doll for a child."

When asked once how his psychology came to be, unlike other text-books on the subject, a sovereign cure for nervous prostration, James answered with a reminiscent sigh:

"If it does help others it must be only because of my own experience. I have traveled the hard road."

The chapters on the Self, the Stream of Consciousness, and Interest are extremely potent. At Kendall Green we use the two books (the Psychology and the Talks to Teachers) simultaneously. From each chapter special applications to work with the deaf are drawn. Above all, conversation in the psychology class is unhampered. Each normal is encouraged to relate personal experiences at length; reports of observations of different deaf children are written by the normals and considered in class; long lists of questions are answered in writing; abstracts of chapters are required; hypothetical schoolroom situations are discussed.

Toward the close of the year we do a good deal of general reading and talking along lines developed by Montessori, Bergson, and Eucken. Herbert Spencer we read but slightly—his educational theories are noted, and criticism thereon, both favorable and unfavorable, follows.

Dr. Harriet Hunt, who has studied with Montessori at Rome, gave us a most valuable course of lectures this season. Dr. Hunt has worked out a clear exposition of the psychological principles underlying the use of the Montessori material. It would be well worth while for every school for the deaf in the United States to invite Dr. Hunt to give her course of lectures to its teachers.

Eucken was brought in at first, I frankly confess, to offset the word "evolution," which in some quarters, even now, is thought to be synonymous with irreligion. Eucken's "Christian Thought" and Bergson's "Creative Evolution" are books which every normal and every teacher should read.

Somebody has said that Henri Bergson has rediscovered the Spirit. At least, he, like James, emphasizes and restates the doctrine of Jesus, "The kingdom of God is within you." In each generation a *few* saints reach the heavenly kingdom through much tribulation. Psychology lessens the tribulation, avoids enormous waste of human energy, and forms for sinners a short cut to the highway that leads to God. A prominent Congregationalist minister, when asked whom he considered the world's greatest present-day religious teacher, answered unhesitatingly: "William James, the psychologist."

Our normal course in psychology receives constantly help and inspiration from those whose "words are windows to eternal things," the poets. Some time is

given to the subjects of national psychology as connected with the Time Spirit and world psychology as connected with politics and new discoveries in science. Stress is laid on the fact that each individual's psychological life is enriched and widened by the reception of currents from these great seas and that without such enrichment the individual misses the great realization which brings tolerance, patience, divining sympathy—the teacher's most valuable assets.

Nor must frequent warning of the consequences of disobedience to psychological laws be omitted—that warning, given in solemn, pregnant words by an anonymous writer:

"Every spirit builds its own house, but afterward *the house confines the spirit;* therefore you had better build well."

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THE CORRELATION OF LIBERAL AND VOCATIONAL EDUCATION FOR THE DEAF.*

Our schools for the deaf are, for the most part, intermediate schools and the training given the pupils must, of necessity, be elementary in character. With a single exception, our schools do not attempt instruction beyond the high school branches or entrance to college, nor can the work done in our schools be truly called technical in character, in so far as our vocational work is concerned. I shall not attempt to broaden the scope of this paper to include college education, but shall restrict myself wholly to a consideration of the correla-

*Read at the Twentieth Meeting of the Convention of American Instructors of the Deaf, Staunton, Virginia, June 30, 1914.

tion of liberal and vocational education for the deaf as we have it to-day in our schools in America.

In the strictest sense we give neither a liberal education nor technical training in our schools. Only a small percentage of our pupils ever receive that broad and practical education which can truly be termed liberal, and few indeed acquire a vocation while in school.

I do not mean, in any sense, to disparage the excellent, but limited, education we give our pupils, nor to detract one iota from the good training our schools are giving along industrial lines. I simply wish to assume our proper place in educational processes and activities and to assure ourselves that we have by no means reached the ultimate goal, either in educational work or vocational training, and certainly not in the union of these two branches of education, for we are just beginning the correlating process in our schools.

I assume that a liberal education as applied to our schools means the best all-round practical education to be given a deaf child in a limited period of time in school, approximating ten or fifteen years; an education such as to-day is given in all our schools in America. I also assume that the term vocational as applied to our work means instruction and training in mind and hand of a character to prepare the pupil in an occupation from which it can earn a living. This training in our schools is designated by such terms as: trades teaching, industrial occupation and instruction, shop work, manual training, industries taught, etc., but in very few instances, if any, is the training of the hand and the mind in schools for the deaf characterized as vocational. In this respect the public schools are ahead of us, but only in the matter of designation, for our schools were the pioneers in industrial education in America and are still doing some excellent pioneering

in that line. The public schools have only recently taken up industrial instruction in earnest and have naturally assumed the most up-to-date nomenclature. We should do well to emulate their example. We can, however, fairly and honestly say that we are not only abreast of the times in elementary vocational instruction, but are, to a marked degree, setting the pace.

In the early instruction of deaf children there was little correlation of the school and shop work. In fact, the work of the hand by deaf children was almost entirely for economic purposes, and it is sad, but often too true, that much of it is still simply "work" and at times work of the sort that does not best prepare the pupil for a livelihood. It is sometimes the kind of work that temporarily relieves a pressing situation in the domestic operations and management or in the economical running of the school. We are bound by traditions in this particular and it will take some time for us to wholly rid ourselves of this feature of our institutional operations. In this respect the public schools, and some private ones, are again ahead of us; a most notable example is Mt. Holyoke Seminary, which relieved herself of student labor this spring, so that hereafter whatever work the students do will be purely vocational in character. We come by our practice of a domestic use of our pupils in a perfectly logical manner and if this use is not abused, but properly interpreted and made a part of the educational processes, it becomes a source of untold opportunities for varied and complete elementary vocational training, such as our public schools would gladly welcome, but can never hope to secure. This does not mean that our schools should not properly use the pupils in the domestic educational side of the operations of the institution, but it does mean that we should guard carefully the tendency to place

emphasis upon the amount of work rather than upon the nature of the work done, and upon the output rather than the quality of the workmanship and the kind of instruction. This can truly be said to be the chief besetting sin of our industrial education in our present schools for the deaf. We often place more stress upon the economic value to the institution of a pupil's industrial work or vocational ability than we do upon employing the facilities the institution offers to teach the pupils how best to occupy their time and position to further their prospects in earning a living. In other words, we are apt to work the pupil for the institution instead of working the institution for the pupil, and it is just at this point, in my opinion, that a more careful correlation of the educational and vocational work of our schools is most needed.

We have to-day in operation nearly one hundred occupations, taught either as vocations or accomplishments intended to be vocational. These occupations embrace a great variety of industrial pursuits and are so varied in character that no single school could possibly attempt to teach them all, nor would it be in the least advisable to try it. However, each school has, or ought to have, some vocational instruction and many of the schools have a variety of vocational classes, well organized, properly classified, and under trained teachers.

It must be plainly evident to those intimately engaged in the education of the deaf that closer relations between our industrial and educational departments for the most part is desirable and in many instances imperative for the best educational interests of the pupil. In this respect, however, conditions have greatly improved in recent years. The time was when an "instructor" in an industrial department needed only a good working knowledge of a trade or occupation

to qualify as an industrial teacher. Often ignorant and uncouth, wholly unable to impart instruction or even properly disseminate useful information, but withal a skilled workman, the industrial instructor was placed in charge of a group of pupils and left to his or her own devices to "teach" (save the mark) the fundamental principles of a trade or occupation. That they often succeeded in giving some pupils an excellent working ability at earning a living is undoubtedly a fact, but it was due more to a good industrial example than to any vocational instruction or trade precept. The capacity of most of the older graduates of our schools successfully to care for themselves attests the efficiency of such methods to a limited degree, but only a small percentage knew the business so that they were capable of using the language of the trade or occupation or could even apply the names to the simplest materials and the most common tools.

This was a good beginning and served to give the pupil a sense of application to work that his hearing brother received by being apprenticed, so that when he left school he was ready to take his place beside his brother and figuratively, if not too often literally, "hoe his own row." Modern industrial conditions have rendered such vocational practices obsolete and the deaf man must to-day know the job in the same sense and to the same degree as does his hearing companion.

With the introduction of the kindergarten, sloyd, and manual training into our schools came decided changes in the manner and methods of imparting instruction and conducting our industrial classes. The kindergarten softened the rigidity of the schoolroom instruction; sloyd strengthened the tissues and heightened interest in common things about the child; calisthenics limbered the joints and strengthened the

muscles, and manual training taught the use of simple tools and common materials, their relation to other things about the school and their connection with objects in the classroom. Nature study intensified the desire for further knowledge of plants, trees, etc., and Arbor Day inspired a love for and a desire to protect them. Teachers of the kindergarten became sloyd teachers; teachers of art embraced manual training, and teachers in the classroom prepared in sloyd and manual training, until it is no uncommon experience to have a manual-training teacher interested in and teaching arithmetic or a sloyd teacher sharing the responsibility of the articulation and language in the kindergarten and primary classes. This "coming together" process not only applies to the educational side of an institution, but is equally true of the domestic side. To-day we have matrons in the strictest sense of the term, who not only are able to conduct the household along scientific lines and on economic principles, but are qualified as well to teach them to the girls and boys under their care. Supervisors are also secured for their efficiency, not only in caring for children but in overseeing their work and instructing them also, until we have very often the almost ideal combinations of matron and teacher of domestic science and cooking; supervisor and teacher of dressmaking; assistant matron and teacher of plain sewing; drawing and teacher of weaving; art, modeling, and teachers of basketry; manual training and teachers of drawing, etc. These are actual combinations of only a few years' standing which have proved themselves proper combinations and are successful in our schools. The positions are good ones and are filled with trained teachers of the deaf; trained public-school teachers; normal, university, college, and high-school graduates. This is the first

distinct step forward in the correlation process, and it is a good one. This step followed to its logical conclusion means gradual, but complete and radical, changes in our educational and vocational methods.

A great deal of human knowledge is imparted to our pupils in the course of their institution careers. Is this knowledge all useful and is it all thoroughly assimilated? Do we make our educational and industrial departments homogeneous, or is each department operated as a separate or distinct plant, not wholly a law unto itself, but with very little in common with the rest of the institution? To correlate this human knowledge is a very important phase of our work and is, indeed, the very essence of making education liberal. It is a vitalizing and humanizing process to which teacher, pupil, and employee must contribute. We are fast coming to realize, and it will not be long until we fully recognize, that, in any high sense, liberal and practical mean the same thing. There has always been somewhat of a conflict between these two doctrines in education. In a recent issue of the *Century* magazine Harold C. Goddard says that "while each stands for a great truth, each has been identified in many minds with a great falsehood. The great truth in the doctrine of practical education is the perception that nothing is worth while that does not relate itself to the every-day life of man. The great error in the doctrine of practical education is the belief that the only things that possess that relationship are things of an immediate bread-and-butter nature. It is not enough, the practical education must remember, that a subject enables a student to get results; those results must be shown to be worth while in the light of human life. But it is also not enough, the liberal education must remember, that a subject has a relationship to the real and palpitating

issues of life; it is necessary that the student be made to see and feel the connection clearly, constantly, and vitally."

The question naturally arises as to what extent this correlation shall proceed and how it can best be accomplished? That depends almost entirely upon the school, its head, and its teachers. One school will succeed far beyond another in correlating its classroom and its vocational work, just as one school now far exceeds another in the proper adjustment of its household to the educational work, or its kitchens to the gardening, or its printing to the classrooms, or its articulation drill exercises to the operations of the dining-room, or its speech to the chapel exercises. To say that these apparently incoherent sections of a school cannot be or are not correlated is to confess a disjointed institution and a poorly organized school. The better the correlation the better the organization and the better the practical results. This correlating and organizing process is a situation which confronts every superintendent, principal, and teacher, in fact everybody connected with the school. No employee occupies a position so far removed from the head that he or she should not be correlated. If this is impossible then the employee is not suited to the work. Everybody in an institution should be interested in every phase of that institution and every feature of an educational institution should lend something to the sum total of its cultural influence and atmosphere. "It is a curious fact that only through an interest in the whole can one arouse an interest in the parts; that what logically should be the fruit and outcome must, by a queer twist in the nature of things, be likewise the seed and starting point." It practically resolves itself into demanding at the beginning of a pupil's education that which should

be really its end and consummation. We sometimes lose sight of this simple principle in our educational systems. It might be rightfully called the educational paradox. We consistently place the cart before the horse. We often set our pupils at industrial piece-work, putting out pieces of suits, pounding out pieces of shoes, setting up pieces of plain copy, baking large batches of bread, rolls, pies, etc., long before we give them any idea of what constitutes the completed article or what it should look like viewed from a vocational standpoint, hoping that in the far distant future they may somehow come in contact with the spirit of the occupation or trade and in some mysterious way absorb enough of its atmosphere to make them finished workmen. What we need in our industrial departments is more of the spirit of a true liberal education in the practical transformation of the cloth, leather, type, and flour into useful articles by methods and processes similar to those of the classrooms where, as if by magic, sounds, words, and figures are transposed into speech, problems, and language, giving the pupil at the same time a cheerful and hopeful vision of the goal, amid surrounding obstacles and discouragements.

This bringing together into intimate relations the various branches of a large school has necessitated the employment of more competent and better-prepared teachers and assistants. If the operations of the sewing-room, the printing shop, the carpenter shop, the dining-room, the kitchen, the pantry, the laundry, the farm, the garden, and the dairy are to be made truly educational in spirit and vocational in character, these departments must be ably manned by thoroughly trained and capable people—those only who are able to instill into the pupils a spirit of diligent and studious co-operation and enterprise, as well as able to teach them

the fundamental principles of the occupation, the language of the trade, or the practical details of the work engaged in. This we have accomplished only in spots. Our domestic-science and cooking classes, art classes, drawing classes, and printing classes possibly come nearest to it; our manual-training classes are established for that purpose and the various other occupations approach it only as they are well or poorly organized, fully or meagerly equipped, and properly or improperly taught. These classes should be under the care of teachers especially equipped by training and experience to carry the pupil along to the close of his course and to instill into him the desire for further knowledge and higher skill in his work. This requires a peculiar temperament in a teacher and can be secured only by careful selection, special training, and abundant experience.

To outline a plan for the correlation of our educational and vocational work which would satisfy the demands of our schools would be, for all practical purposes, an impossible task. A plan that could be successfully operated in one school might fail utterly in another school. No outline could be arranged to embrace the varied occupations taught in our schools, for no two schools teach the same things. We have not yet reached the degree of organization or system in our industrial departments that we have in our educational departments. The same branches are taught in all our schools in our primary, intermediate, and advanced classes, but not so in our industrial or vocational classes. In that respect, the occupations are almost as varied as the number of pupils in the schools and the use to which the occupation can be put in the school or the demand for such work in the immediate vicinity. We have methods of developing the various branches taught in our classrooms. These have been worked out with

great care and skill in order to assure the best results in the shortest possible time, with the least expenditure of energy, under the most favorable circumstances. Not so with our vocational work. While here and there we have a well-planned course for some particular class or kind of vocational work, in the great majority of schools there is no systematic plan of instruction or well-developed course of procedure such as we find in the classroom work. We often have some excellent vocational teachers doing good work in particular lines, teaching everything essential in the elementary presentation of the subject; but we more often have a number of good workmen but poor teachers, with a loose organization, doing conscientious work, but not throwing about the work that atmosphere and spirit of culture which enliven and strengthen the powers, both mental and physical, and make the occupation an active and potent influence in the pupil's life. Some of our schools have good industrial departments and have their vocational work well organized under a head teacher or principal, who brings together the various industries, connecting them with the other activities of the institution in such a manner as to make the whole a compact educational unit, working for the best cultural interests of the pupil with the most economic and best scientific results to the school, but this is true of but a very few of our schools and only those specially favored with liberal incomes. Others must be content with present conditions until they can be altered and with present results until the limited means at their disposal can be augmented by sufficient income to secure adequate equipment and competent teachers. A great deal has been done in recent years to throw about our industrial work an educational environment and to invest the classes with a cultural spirit similar to other classroom

work, but until these influences are more thoroughly recognized and more generally applied we cannot be said to have real industrial departments or vocational schools, nor to be actually giving a truly practical and liberal education.

Our schools have always aimed to give a broad and liberal education to their pupils. We must continue this endeavor with renewed zeal if we wish to keep abreast of the times. Work has always constituted a proper share in rounding out the pupil's education, but hereafter it must play a prominent part in the pupil's cultural development. Work with the hands, leading to vocational training, must become a more animated part of our school curricula. The institution must give broad culture and must be inspired and stimulated by an earnest desire to help every child to understand and grasp the great truths that were accumulated for our generations, as their rightful heritage from the past. Every institution should give its pupils a working knowledge of reading, writing, speech, and numbers that will enable them to reach out and climb into any field of thought and endeavor to which their interests may lead and, in addition, should give to all pupils a feeling and inclination for the highest vocational, social, and religious aspirations. Work must constitute a great part of this endeavor, for we have still fully to appreciate that our hands are our primary sense organs. "Because the symbols of knowledge in the spoken, spelled, and written word have appealed wholly to the eye, we have been partially led astray and have been inclined to overlook the fact that the source of new knowledge is mainly through the hand, and that the most valuable of all knowledge comes to us as we work with materials. In other words, we need practical work as a part of our school course, not so much that we may

become better mechanics or farmers in later life, but that we may acquire the broadest possible experience and understanding of the world in which we live, and all our pupils need this, whether they are destined to be clerks, bankers, printers, tailors, lawyers, or business men, quite as much as artisans and farmers." The deaf child's muscles are intimately bound up with its intellectual life. Through them largely are its emotions expressed and through them also must its vocational inclinations be revealed. A careful survey of each child's inclinations and possibilities must be made and vocational training offered that will fit it directly for life's work. City children must gain skill and knowledge for their future occupations, and country children must receive in their schools a broad training that will give them an understanding of the scientific principles as well as skill and enthusiasm for the work itself. This kind of vocational training, or work, is needed by every deaf child for its own intellectual and moral development, and should receive more attention in our schools on that account, if no other.

I conceive of an institution for the deaf with several hundred pupils drawn together from city, farm, mine, lumber camp, cottage, and palace; American, Swede, German, Jew, Italian, and Pole; Catholic and Protestant, Jew and Gentile; with a broad course of studies; with laboratories for elementary physical sciences, such as botany, chemistry, physics, and a little biology; with workshops for the practical demonstration of various occupations; with classrooms equipped for instruction in language, speech, arithmetic, algebra, geography, and other cultural studies, taught as they are at present. A large farm would surround the school; cottages would house the pupils; men and women, graduates of schools of model training, would be placed in charge and all

the activities in and about the institution would be based upon vocational work; the language and facts of history and geography, of arithmetic and botany, of laundry and dining-room, of farm and boiler-room, of carpenter shop and lawn, articulation drill and speech exercises, speech reading and visible speech, all would draw their educational materials and inspiration directly from the vocations. The range of activity is great; the field is as broad as the world, and the research as deep as nature; the development is cultural and the results would be practical.

This is no idle dream. Teachers are now in course of preparation in various public schools for just such work and our schools are not so far away from this ideal as one might suppose—the model institution for deaf children. A glance at the curriculum of any well-ordered school for the deaf will reveal that almost every subject is susceptible of an industrial or vocational interpretation. Such as are devoid of this possibility are of doubtful value in the curriculum and should be dropped, unless some one is able to advance a valid defense for their retention. I should like to have the entire curricula of our schools for the deaf shot through and through with the meaning, the spirit, and the possibilities of vocational training, and, in my opinion, one of the most valuable results of such action would be to imbue both the curriculum and the teaching staff with vocational inspiration, so that they will advance into the realm where the deaf child lives, and, thus finding itself at home in school, the child will long to remain to the last possible moment instead of, as at present, tugging at the leash, eager to leave at the earliest possible opportunity.

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REPORT OF THE EFFICIENCY COMMITTEE OF THE CONFERENCE OF SUPERINTENDENTS AND PRINCIPALS OF AMERICAN SCHOOLS FOR THE DEAF.

To Superintendents and Others:

THE Committee on "Measurement of Efficiency of Schools for the Deaf" appointed at the Staunton, Virginia, Convention last summer (Special Session, Conference of Superintendents and Principals)* held its first meeting at the Indianapolis School, being in session four days, Tuesday to Friday, January 12–15.

This Committee consists of Superintendent Crouter, of Philadelphia; Superintendent Jones, of Ohio; Superintendent Rogers, of Kentucky; Professor Kilpatrick, of Hartford, Connecticut; and Superintendent Johnson, of Indianapolis, as Chairman thereof. All of the members were present excepting Mr. Kilpatrick, who was absent because of other duties. Mr. Jones was selected as Secretary of the Committee, which held three sessions daily—morning, afternoon, and night. The various members of the Committee made a thorough inspection of the School, its organization, its various arrangements and equipment, its schoolroom work, etc., etc.

The full scope of the Committee's work as called for in the resolution directing its appointment was given earnest and careful consideration so as to establish a basal outline of the whole; and, in doing this, thought was given to the growing criticisms against educational efforts generally—for instance, as to the difference in standards and measurements of applied mechanics and of educational administration—the former in terms of science, knowledge, and precision, and the latter

*See the *Annals* for September, 1914, vol. lix, pages 398-400.

largely in opposing terms of conjecture, opinion, and chance.

It was determined to divide the work as follows:

1. The establishment of a composite scale (or scales) for measuring the efficiency of any school for the deaf along four lines—(a) Mental, physical, and moral conditions of pupilage; (b) Organization (general attendance, equipment, and environment; general organization); (c) Instruction (literary and industrial curricula; teaching force; supervision); (d) Results of instruction (progress of pupils; their independence and self-containment; results as demonstrated in after life).

2. The establishment of a scale, or scales, for measuring the mentality and accomplishments of deaf children, giving heed to both native and acquired ability, including the factor of experience; and, therewith, consideration of the Binet-Simon Scale for age intelligence, and certain other test scales for handwriting (Thorndyke and Ayres); for spelling (Rice and Cornman); for arithmetic (Stone and Courtis); for English composition (Hillegas); and others.

3. The establishment of age, grade, and progress norms.

In connection with the whole, consideration was given to the questions of Late entrance, late entrance and slow progress, and slow progress; to Slow, rapid, and normal progress; to Repeaters and retardation; to Super-normal ages to grades leading to an "Age and Grade Classification;" to Elimination; and to Degrees of deafness, whether congenital or adventitious, and its influence upon nearly every phase of education. Discussion of these matters was based upon information presented in tabular form taken from the Indiana School records, and upon similar conditions and results

as found in the public city schools of our country which were also presented in tabular form for comparison.

Before adjournment the following were tentatively agreed upon:

1. A scale for measuring the efficiency of schools (maximum rating, 1,000 points), covering the ten points, arranged in four groups, as above referred to.

2. An age and grade classification showing normal, sub-normal, and super-normal ages for the various grades and indicating retardation, repeaters, and elimination, and, to some extent, the adjustment of courses of study to the various mental types of pupils.

3. A scale for measuring the item of "Success" on the part of a teacher, presuming initial qualifications—sufficient educational attainment, pedagogical training, interest in the work, and good health.

Other than a thorough discussion thereof, no effort was made at this meeting to establish a scale, or scales, for measuring the mentality of deaf children, which is to be carried forward for further discussion at future meetings of the Committee, as also will be the tentative agreements already reached which may be confirmed, or rearragned, as further research and study may determine.

Meeting with the Committee at two of its sessions was Dr. M. E. Haggerty, Associate Professor of Psychology and Director of the Bureau of Co-operative Research, Indiana University, who stated that the work of the school for the deaf, as viewed by him during the morning, was a revelation to him. He advised and counseled with the Committee concerning the work it had in hand and was of valuable assistance in its deliberations. His department will gladly aid the Indiana School in developing some of the many questions along the various lines presented by the Committee. In this

connection it may be stated that Dr. Patterson, of the Ohio State University, Dr. Lightner Witmer and Dr. Twytmeyer, of the University of Pennsylvania, and Dr. H. H. Goddard, of the Vineland (New Jersey) Research Laboratory, will meet with the Committee at its future meetings, which will be held in Columbus, Ohio, March 9; in Philadelphia the fore part of May; and at such other times and places as may be agreed upon. Meeting also with the Committee was Mr. W. K. Stewart, of Indianapolis, who has given much thought and study to social and economic questions which possess decided relative values in a general scheme of education and preparation for life's duties.

The Committee fully appreciates the vast importance and difficulties of its duties and asks the generous aid of those vitally interested in the way of suggestions; and it would respectfully ask that, if such suggestions are made, duplicate typewritten copies be sent to each member of the Committee. Several superintendents have already written, the consensus of opinion being briefly expressed by Dr. Enoch Henry Currier, of New York, as follows:

> At this present, the institutions for the deaf present as many varieties as they are in number. No two schools are alike, and if the Committee shall be able to standardize so that there may be intelligent comparison, I am sure great benefit will result therefrom. * * * I regard this Committee as the most important committee that has ever been appointed by any of the conventions and have great expectancy as to the result of its deliberations.

Dr. Leonard P. Ayers, Director of the Division of Education, Russell Sage Foundation, writes:

> The task of your Committee will undoubtedly be difficult but it will as certainly be interesting. I shall examine with great interest the pamphlets sent me.

Without including it in this report, but believing that there is truth in its every line, your attention is called

to the quotation, "Scientific Method of Education," which follows this report. Comment is unnecessary except to add that in order for progress there must be constant agitation and reaching out toward ideals—and "new principles formulated, new truths recognized, and traditional practise readjusted"—and these things constitute the permanent problem of the "ever-solving, but never-solved problem of education."

Efficiency, in its entirety, covers everything that enters into the operation of our schools. In this modern day everybody, and every movement, are coming to be measured by, and for, efficiency—a word representative of the idea of effective competency. This effort at the present time is not as general and thorough as we would wish it, or as it will be in the future—and that it is certainly coming with its impartial judgment cannot be denied. Are we ready for its judgment?

Widely scattered as we are, and without uniform methods and criteria of almost every kind, the incentive for higher things may become deadened through lack of definite information as to our own shortcomings, the excellence of others, and of this procedure, or of that. With some more or less definite plan for measurement of efficiency, Class A schools may become still better, and Class B or C schools may clearly measure themselves in terms of Class A and improve their standing—and the resultant will be that the general movement will be strengthened in every way.

What is the end in view in the education of the deaf, anyhow? Let's have an answer—and in a paragraph of fifty words.

RICHARD O. JOHNSON, *Chairman.*

THE SCIENTIFIC METHOD OF EDUCATION.

In education, as in industry, the scientific idea is at base analytical scrutiny, exact measuring, careful recording, and judgment on the basis of observed fact. Swiftly, silently, and almost without warning, the scientific methods have invaded the educational camp and have begun to demolish the hosts of theory, legend, superstition, and tradition.

The object of the new method is the substitution of evidence for opinion, and knowledge for speculation. Its champions are working to develop measurements in education because they realize that only by this method can education become an art and a science, and its practice be changed from a vocation to a profession. They scan the history of science and remember that through the development of measurement astronomy grew out of astrology, chemistry emerged from alchemy, and physics developed from mystery. They read the history of education and realize that the astonishing progress of the past decade has come from shifting the form of inquiry from asking, "What results can or might we get?" to "What results are we getting?" This makes the pupil, and not the teacher, the center of interest. * * * Simple as it sounds, this change in the form of inquiry is the keynote of the whole scientific method in education.

"How much?" and "How many?" and "With what results?" are going to displace guess-work, imagination, and oratory as criteria for shaping educational policies.

The time has already passed for us to query whether or not we shall endorse and adopt the new scientific criteria of exact measurements and judgment by results. The new method is upon us, and the question at issue is no longer "Shall we adopt it?" but rather, "How shall we utilize it?"

LEONARD P. AYRES,
Director of the Division of Education,
Russell Sage Foundation, New York City.

THE NEXT MEETING OF THE CONFERENCE OF SUPERINTENDENTS AND PRINCIPALS OF AMERICAN SCHOOLS FOR THE DEAF.

THE INDIANA STATE SCHOOL FOR THE DEAF,
INDIANAPOLIS, *January 30, 1915.*

To the Editor of the Annals:

SIR: Through the *Annals*, the Executive Committee begs leave to report to Superintendents and Principals as follows:

The next triennial meeting of the Conference of Superintendents and Principals of American Schools for the Deaf would regularly be held during the summer of 1916; but at the Staunton Convention last summer there was some expression in favor of holding it during the coming summer in connection with the Panama Exposition, providing the American Association held no meeting (which it has decided not to do), and the question was referred to the Executive Committee with power to act in the matter.

After correspondence, and with knowledge that some of the members were not in favor of a meeting, that others were not in favor of a California meeting, and that most of the members west of the Mississippi River would probably wish to attend the Panama Exposition rather than come eastward for the Conference, it has been decided by the Committee that a summer meeting of the Conference will not be called. But in view of the fact that the American Association to Promote the Teaching of Speech will probably hold its summer meeting in 1916, the Committee hopes to call a meeting of the Conference during the fall of this year at some central point if the members are interested therein.

On behalf of the Executive Committee,

RICHARD O. JOHNSON, *Chairman.*

SCHOOL ITEMS.

American School.—A course of instruction in agriculture has been introduced, covering the elementary features of plant propagation, hotbeds, and other points of gardening and fruit raising.

Barrows School.—The "School of Hearing," conducted by Mr. Charles M. Barrows, who claims that he can teach the deaf to hear through psychical suggestion,* is now situated at 560 West 180th Street, New York City. Mr. Barrows is assisted by Miss Elizabeth F. Tiernay. His Advisory Council includes Professor James H. Hyslop, of Columbia University; Hon. William S. Bennet, a prominent lawyer, formerly a Member of Congress; Dr. W. Grant Hague, and other well-known citizens of New York. Rev. John P. Hines, of St. Matthew's Catholic Church, says of Mr. Barrows that he "strongly impresses those who meet him as sincere, earnest, and heartily devoted to his chosen work." He believes him "to be engaged in a noble and praiseworthy service to mankind, which truly deserves public confidence and recognition." The New York *Evening Post* is quoted in a pamphlet concerning the school as saying "it is not to be denied that in this school children who are to all intents and purposes deaf-mutes receive a unique training, which brings great benefit." A former student of Gallaudet College writes us that her hearing has improved under Mr. Barrows's treatment. "After being stone deaf for thirty-two years," she says, "I can now hear cars, automobiles, some music, and some words. Of course the words do not sound as clear and distinct as to you and I am not always able to hear them." Pupils whose parents are not able to pay are admitted free.

Notwithstanding the high character of the persons who vouch for Mr. Barrows, a thorough test will have to be made by experts before the results he announces can be fully accepted.

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*See the *Annals*, liii, 272, and liv, 195.

Gallaudet School.—Miss Helen B. Fulkerson has resigned to teach a private pupil. She is succeeded by Mrs. Sara Small Temple, from the Illinois School, who was formerly a teacher in the Gallaudet School.

Illinois School.—Mrs. Sara Small Temple has resigned to teach in the Gallaudet School and Miss Delle Mayne to teach in the Texas School. Miss Elizabeth S. Lloyd, formerly a teacher in the Oklahoma and Texas Schools, has been appointed to fill one of these vacancies.

Indiana School.—Mr. Sidney Jefferson Vail, an honored teacher in the Indiana School for fifty-three years, died at the residence of a daughter at Murray Hill, New Jersey, February 16, 1915, aged seventy-six. Mr. Vail was graduated from the New York Institution in 1858, was an instructor in training in that school during the following year, and taught in the Indiana School from 1860 to 1913. In 1911 Gallaudet College conferred upon him the honorary degree of Bachelor of Pedagogy. One of his daughters, Miss Helen C. Vail, is Supervising Teacher in the New Jersey School.

Kendall School.—Miss Ruth E. Stone, teacher of manual training, has resigned on account of poor health. The vacancy is filled for the remainder of the school year by the appointment of Mrs. Louis L. Hooper, who as Miss Gertrude C. Dunn formerly taught manual training in this School.

Minnesota School.—Mr. Arthur P. Buchanan, formerly a teacher in this School, and more recently in the Michigan School, has been appointed to the position made vacant by the resignation of Mr. Thomas Rodwell.

North Carolina (Morganton) School.—The corporate name of the School has been changed by the State Legislature from "School for the Deaf and Dumb" to "School for the Deaf."

Texas School.—Miss Josephine Avondino has resigned to teach in the Central Institute at St. Louis. She is succeeded by Miss Delle Mayne, from the Illinois School, formerly a teacher in the Texas and Oklahoma Schools.

MISCELLANEOUS.

The Faults of the Deaf.—Rev. Eugen Sutermeister, himself a deaf man ministering to the deaf in Switzerland, has an article in the *Organ der Taubstummen-Anstalten in Deutschland* for November, 1914, entitled "Faults of Character in the Deaf, their Causes and How to Deal with them." The faults that he enumerates are lack of self-control, lack of self-knowledge and insight, self-esteem and conceit, lack of a feeling of responsibility, distrust of others, ignorance of the world and credulity, envy and jealously, sensitiveness and irritability, gossip and slander, quarrelsomeness and unsociability, obstinacy and unteachableness, ingratitude.

Mr. Sutermeister finds these defects among the adult deaf as well as among pupils in school, among semi-mutes as well as among the congenitally deaf. He admits that there are some exceptions. Nor does he assert that, aside from these exceptions, every deaf person has all the faults enumerated, but that some of them are to be found in one deaf person and some in another.

Mr. Sutermeister gives a specific explanation for the existence of each of these faults in the deaf. These explanations may all be summed up in his theory that moral impressions received through the eye are less effective than those received through the ear, and his belief that the mental horizon of the deaf is so narrow and limited that they fail to perceive the facts of life in their actual relations.

It seems to us rash to generalize freely, as Mr. Sutermeister does, concerning the characteristics of any class of persons, and especially of a class among whom there is so great diversity as there is among the deaf. There are deaf persons who have some of the defects named; there are also hearing persons who are similarly handicapped. Like hearing people, the deaf should be judged not as a class but as individuals. But we heartily agree with Mr. Sutermeister that teachers of the deaf should make every effort to broaden the horizon of their pupils' mental vision and lead them so far as possible to see and know things as they really are.

Speech-Reading on the Stage.—Mr. Otis Skinner, who during the past winter has been playing in "The Silent Voice" the part of a deaf man who has learned to read the lips with remarkable success, says in an interview published in the New York *Times* of January 10, 1915, that in preparing for the part he studied the habits of the lip-reading deaf very carefully, noting particularly "their set, blank expression until they had read enough of a person's speech to convey the full meaning to them." He adds:

> "The person who is reading the lips has to be very intent upon the speaker's *lips*, and he has no time to look at the speaker's eyes or otherwise to get some idea in advance of just what is going to be said. If you are telling a joke to any one, your hearer generally begins to get ready to laugh before the story is finished. He sees in your eyes and in your general expression the fact that the time to laugh is coming, and he begins to laugh with you. With a deaf person, however, it is entirely different. He is intent upon watching your lips move, and his face remains expressionless until the very end.
>
> "I gathered all those points as I studied the characteristics of the deaf. Once I got it into my mind what I wanted to do, it was not particularly hard to do it. It was simply acting a part, and I think I ought to be able to do that."

Is Mr. Skinner right in his belief that the deaf lip-reader's gaze is so closely fixed upon the lips that he perceives nothing else? We think not. The eyes of the skillful speech-reader take in the general expression of the face as well as the movement of the lips. In fact the general expression of the face is to the deaf person what the modulation of the voice is to the hearing person, and he is much more observant of it than the ordinary listener. If his interlocutor speaks in a natural manner—too often he does not—the deaf person knows when a joke is coming as quickly as anybody, and he often guesses the conclusion of the sentence long before it is reached.

Signs for Religious Terms.—The Rev. M. R. McCarthy, S. J., an active worker for the welfare of the Catholic deaf in New York, has compiled a little book entitled "Religious Terms: One Hundred and One Signs." Its purpose is to secure uniformity in the signs used in Catholic services for

the deaf. Two principles, Father McCarthy says, have been observed in its preparation: "that the sign should be ideographically true, and that it should be brief, graceful, and expressive." The book is published by the Xavier Ephpheta Society, 30 West 16th Street, New York City.

The Mann Memorial.—A beautiful window depicting the gospel story of "Ephphatha" was dedicated in Trinity Chapel, Columbus, Ohio, January 25, 1915, "in loving memory of Austin Ward Mann, for thirty-six years missionary to the deaf." The window was the gift of the deaf throughout the middle west to whom Mr. Mann ministered. Addresses were made at the dedicatory exercises by Rev. B. R. Allabough, Mr. Mann's successor; Rev. E. F. Chauncey, Rector of Trinity Church; and Mr. C. W. Charles, Lay-Reader of the Mission. A memorial poem by Rev. G. I. Foster, a friend of Mr. Mann, was rendered in signs by Miss Cloa G. Lamson, a teacher in the Ohio School.

The American Association to Promote the Teaching of Speech.—At a meeting of the Board of Directors held in Washington, December 31, 1914, at which nearly all the members were present, the following new officers were elected: Hon. Edmund Lyon, of Rochester, N. Y., President, in place of Dr. Caroline A. Yale, resigned; Mr. T. C. Forrester, Principal of the Maryland School, and Mr. J. D. Wright, Principal of the Wright Oral School, directors, in place of Dr. Job Williams, deceased, and Dr. W. B. Mason, resigned.

It was decided not to hold a Summer Meeting of the Association this year.

The National Education Association.—The Department of Special Education of the National Education Association was organized in 1897 through the efforts of teachers of the deaf. Its purpose, as set forth by Dr. J. C. Gordon, its first President, in his "Bulletin No. 1," was, "first, to bring our work as educators of the deaf more prominently before educators in general, bringing them into sympathy with this work, and,

second, to bring ourselves more closely into touch with the best educational thought of the day and into better acquaintance with its representatives." Afterwards the scope of the work of the Department was enlarged so as to include the blind and—against the protest of its founders—the feeble-minded.

Of late years the teachers of the deaf and the blind have gradually become less and less prominent in the Department, until, at the meeting held in St. Paul last summer, the proceedings did not contain a single reference to either the deaf or the blind, the entire time during the four sessions of the Department being devoted to "exceptional, sub-average, sub-normal, backward, and defective children" in the public schools, and kindred subjects. None of the officers elected for the ensuing year have any connection with schools for the deaf or the blind.

That this Department should have been allowed to pass out of the hands of those by whom and for whose benefit it was organized is a matter for regret. But it is their own fault. While a few teachers and superintendents of schools for the deaf have attended the meetings more or less frequently, and have found them profitable in the ways suggested by Dr. Gordon, the majority have held aloof and have shown little or no interest.

Education in Italy.—At the request of the national educational authorities, Mr. G. Ferreri, Director of the Royal Institution in Milan, has prepared a programme of instruction for a course of eight years in Italian schools for the deaf. It is published in a pamphlet of 39 octavo pages under the title of "Programmi e Istruzioni per le Scuole dei Sordomuti" and includes, besides the formal programme of the minimum instruction sufficient and necessary for the deaf child, the author's reasons for preferring the course he lays down to the various courses that have been proposed by other Italian teachers.

The European War and Schools for the Deaf.—Mr. Wende, in his article in the last number of the *Annals* concerning the effect of the European war upon schools for the deaf in Germany, said that 235 of the German teachers were in the field and that six had fallen in battle. We learn from the *Blätter für Taubstummenbildung* for January 15 that at that date the number in the service had risen to 297 and the number of the dead to fifteen. Nearly all of the dead were officers. Fifty-four had been wounded, but some of these had recovered and returned to active service. Forty-three had been decorated with the iron cross.

Mr. Drouot has sent us a second interesting article upon the effect of the war upon the schools in France, but as it comes too late for the present number of the *Annals* it will appear in the next. He mentions the names of four French teachers who have been killed, and others who have been wounded or taken prisoners. He was unable to verify the story that was published in the Paris *Temps* of December 18, which has been going the rounds of our school papers, telling how the town of Vermelles was rescued from the enemy through the adroit use of the sign language. So far as he could learn there was no deaf-mute residing in Vermelles.

In Russia, according to "one of the leading [German] newspapers" quoted in the *Blätter für Taubstummenbildung* for January 15, schools of all kinds have been closed until the end of the war. We hope that is not true.

The Deafness of Soldiers and Sailors.—The British National Bureau for Promoting the General Welfare of the Deaf has offered the services of its Medical Committee, of which Mr. Macleod Yearsley, Dr. J. Kerr Love, and Dr. C. W. Saleeby are prominent members, in cases of aural trouble arising in soldiers or sailors on duty. The War Office and the Admiralty have accepted the offer. We read in the daily papers that many cases of deafness have already occurred in the British Army. This was also the experience of American soldiers and sailors during the Civil War. In 1886 there were 1,280

former soldiers of the United States drawing pensions for total deafness incurred in the service, and 4,159 for partial deafness, making a total of 5,389.

Help for Deaf Sufferers from the War.—Through a committee of which Mr. Edwin A. Hodgson, Editor of the *Deaf-Mutes' Journal*, is chairman, a fund of $573 has been contributed by the deaf of America, in response to an appeal from Miss Yvonne Pitrois of Bordeaux, to aid the suffering deaf of Belgium and France. This is in addition to considerable sums which the deaf of America have sent direct to Miss Pitrois or contributed through other relief agencies. Miss Pitrois, who is in direct communication with many deaf women in those countries and who is competent and trustworthy, will probably attend personally to the distribution of at least a part of this gift. In the *Petite Silencieuse* for November-December, 1914, there is a long list of deaf people whom she had aided before December with money, food, and clothing contributed by friends in France, Switzerland, and Great Britain.

Periodicals.—The Jewish Deaf is the title of a monthly periodical which began publication in February, 1915. Its purpose is to inform the hearing Hebrews in New York concerning the needs of the 2,500 deaf people of the Jewish race in that city, and to give the deaf a means of communicating with the hearing and with one another. The managing editor is Mr. A. J. Amateau, who was recently installed as minister of the Hebrew Congregation of the Deaf in New York. The address is 356 Second Avenue, where the Society for the Welfare of the Jewish Deaf has its headquarters. The price is 50 cents a year.

The Brazilian Association of the Deaf began in December, 1914, the publication of a monthly periodical entitled *Ephphatha*. The editor in chief, who is assisted by two deaf editors, is Mr. J. Brazil Silvado, Instructor in the National Institution at Rio de Janeiro, whom many of our readers had the pleasure of meeting at the Delavan Convention. The

price per annum is "8 $ 000," which is not so large a sum in Brazilian money as it looks to us in print. The address is Rua da Quitanda, 49, Rio de Janeiro, Brazil.

The Next Meeting of the Convention.—The British National Association of Teachers of the Deaf has decided to accept the invitation of the Convention of American Instructors of the Deaf to take part in the next meeting of the Convention to be held at Hartford in 1917.

Reports of Schools.—We have received the following reports of schools: Fredericia, Denmark, for 1913–14; Minnesota, Eighteenth Biennial, for 1912–14; Mystic Oral, Biennial, for 1912–14; Sarah Fuller Home, Twenty-Sixth Annual, for 1913–14; Texas School, Forty-eighth Annual, for 1913–14; Vänersborg, Sweden, for 1914–15; Western Pennsylvania, Biennial, for 1912–14.

ADVERTISEMENTS.

ILLINOIS STATE CIVIL SERVICE COMMISSION.

TEACHER OF THE DEAF.

April, 1915.

An unassembled examination, open to non-residents as well as residents of Illinois, will be held during April, 1915, to provide an eligible list for the position of Teacher of the Deaf at the Illinois School for the Deaf at Jacksonville, Illinois. The position carries a salary ranging from $60 to $125 a month for ten months in each year, with maintenance at the institution. The examination is open to persons over 21 years of age.

Candidates will not be required to assemble at any examination point. The questions will be mailed to them at their home, where their answers may be prepared at their convenience, to be later returned to the Commission for rating. The questions will relate particularly to the education and experience of the applicant along lines tending to fit one for this particular position.

This circular contains all information to be given out.

Application blanks may be secured by addressing the

STATE CIVIL SERVICE COMMISSION,
Springfield, Illinois.

BUREAU OF INFORMATION.

The Convention of American Instructors of the Deaf maintains a free Bureau of Information for the use of superintendents and principals seeking the services of teachers and officers, and for teachers, matrons, and supervisors desiring positions.

The Bureau keeps on file the names of all applicants for positions in schools for the deaf, together with information as to length of service, work desired, salary expected, etc. It endeavors to give prompt and accurate replies to all requests for information.

All are invited to make use of this free Bureau.

FRANK M. DRIGGS, *Secretary,*
Utah School for the Deaf,
Ogden, Utah.

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A first text-book in Geography written in simple language for young children.

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Short stories for pupils in their third or fourth year at school, prepared by JANE B. KELLOGG. Price $4.20 per dozen. Single copy 40c.

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Contains nearly a hundred short stories and seventy-five conversations for practice in language, prepared by WM. G. JENKINS, M. A. Price, $6.00 per dozen. Single copy 60c.

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Hartford, Conn.

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Mrs. A. Reno Margulies, who spent eight months in Rome with Dr. Montessori, conducted a Montessori class the past year which has been visited by hundreds of teachers and students in training. So satisfactory have been Mrs. Margulies's experiments that additional classes will be opened the coming year.

Position Wanted.—A drawing teacher wishes a position in a school for the deaf. Pen and ink, charcoal, stenciling, lettering, water-color painting. Graduate of the Mt. Airy School and of the School of Industrial Art. References. Address FRANCES STUCKERT, Doylestown, Pa.

THE DEAF

THEIR POSITION IN SOCIETY

By HARRY BEST

This scientific study of the deaf in America constitutes an unusually important contribution to the literature of the subject. The method of approach is not by the way of medicine, law, or education, nor yet from the human interest standpoint, but rather the author preserves the attitude of the social economist and regards the deaf as certain components of the state who demand classification and attention in its machinery of organization. The two divisions of the book are devoted, respectively, to a discussion of the position of the deaf in society and to the provisions made for their education. Mr. Best covers much ground hitherto wholly neglected. His book will be found indispensable by students and all who are interested in the subject of the deaf and the deaf and dumb. $2.00 net; by mail, $2.20.

THOMAS Y. CROWELL COMPANY
New York.

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AMERICAN ANNALS OF THE DEAF,
Gallaudet College, Kendall Green
WASHINGTON, D. C.

CONTENTS.

PAGE.

The Influence of Manual Training upon the Mental Development of the Deaf ..... *P. N. Peterson, M. A.* 119

Easy and Natural Speech.—III ..... *Edith M. Buell* 129

Illustrative Charts for Geography Teaching .... *Elizabeth Rhodes* 137

Mental Deaf-Mutism ..... *L. C.* 139

General Suggestions to Teachers ..... *Frank W. Booth, B. S.* 148

Working Psychology for Normal Classes, *Sarah Harvey Porter, M. A.* 153

The Correlation of Liberal and Vocational Education for the Deaf, *Elbert A. Gruver, M. A.* 165

Report of the Efficiency Committee of the Conference of Superintendents and Principals of American Schools for the Deaf, *Richard Otto Johnson* 179

The Scientific Method of Education ..... *Leonard P. Ayres* 184

The Next Meeting of the Conference of Superintendents and Principals of American Schools for the Deaf .. *Richard Otto Johnson* 185

School Items ..... *E. A. F.* 186

American, Barrows, 186; Gallaudet, Illinois, Indiana, Kendall, Minnesota, North Carolina, Texas, 187.

Miscellaneous ..... *E. A. F.* 188

The Faults of the Deaf, 188; Speech-Reading on the Stage, 189; Signs for Religious Terms, 189; The Mann Memorial, 190; The American Association to Promote the Teaching of Speech, 190; The National Education Association, 190; Education in Italy, 191; The European War and Schools for the Deaf, 192; The Deafness of Soldiers and Sailors, 192; Help for Deaf Sufferers from the War, 193; Periodicals, 193; The Next Meeting of the Convention, 194; Reports of Schools, 194.

Advertisements 194